MANUFACTURERS RECORD

A Weekly Newspaper Devoted to the Industrial, Financial, Railroad, Mining, Contracting, Engineering, Building, and General Business Interests of the South and Southwest

Vol. 60 No. 20 ESTABLISHED 1882

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In This Issue:

Activity in Southern Industrial and Railroad Interests.

Increasing Demands Upon the South's Timber Resources.

Place of the Auditor in Southern Industrial Affairs.

Some Clays of the South.

Alphabetical Index, Page 122. Classified Index, Pages 116 to 121. Classified Opportunities, Pages 78, 79 and 80.

B. t. u.

The term British thermal unit (abbreviated B. t. u.), often confronts the user of coal.

As a yard stick is a measure of length, a B. t. u. is a measure of heat. The total amount of heat contained in a pound of fuel, all of which is liberated by complete combustion, is expressed in B. t. u's. A single heat unit is the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit at atmospheric temperature. Heat units make steam and steam makes power.

Below are tabulated, from some of the highest scientific authorities, the heat values of the commoner combustibles contained in coal:

Acetylene Gas - 21,465
Marsh Gas - 23,515
Olefiant Gas - 21,345
Hydrogen Gas - 62,035

Carbon - 14,450

B. L. u. Per Lb.

21,465
Included in the "Volatile Matter"
of proximate analysis.

"Fixed Carbon" of proximate analysis.

CLINCHFIELD COAL IS HIGH IN HEAT VALUE

Clinchfield coal is rich in Hydrogen and the Hydro-Carbon gases shown above. These "VOLATILE" gases burn above the fuel bed with rapidity and great intensity in close proximity to the boiler surfaces. Quick liberation of heat units means quick generation of steam; hence the economy in using Clinchfield coal which maintains boilers at high capacity easily and continuously, thus delivering more than the rated horse-power. Clinchfield coal ranges from 14,000 to 14,700 heat units per pound, because it contains small percentages of oxygen, moisture and ash, which are valueless, and large percentages of the combustibles highest in heat value.

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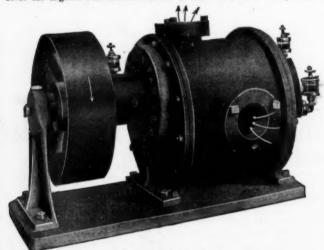
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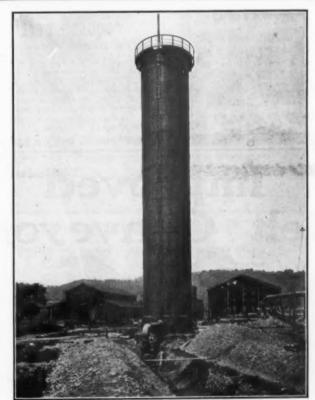
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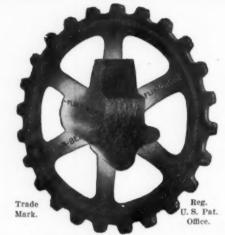
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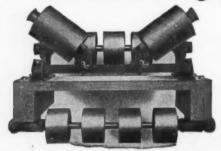
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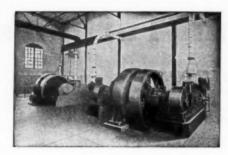
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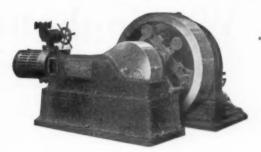
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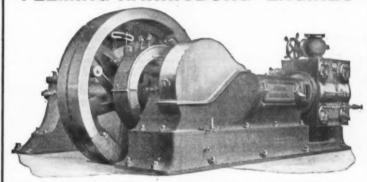
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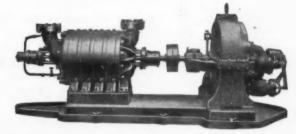
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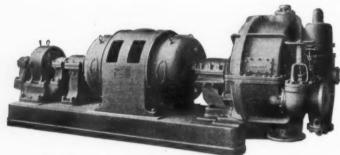
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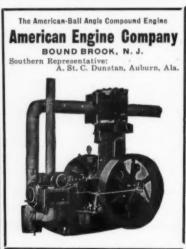


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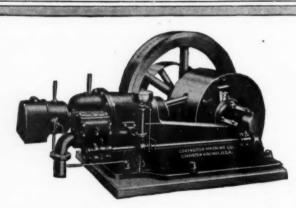
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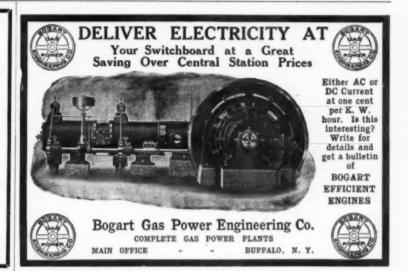


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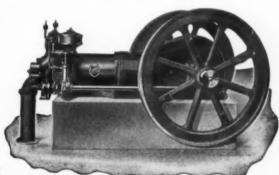
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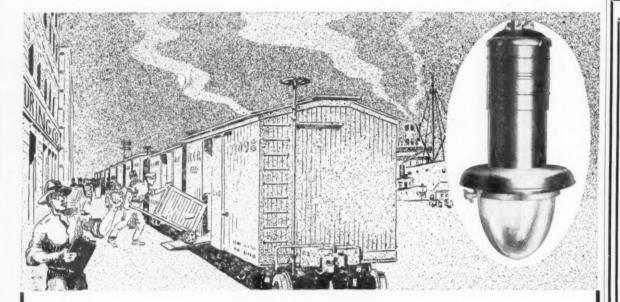
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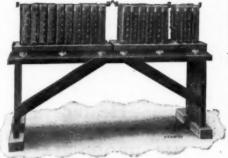
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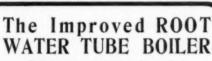
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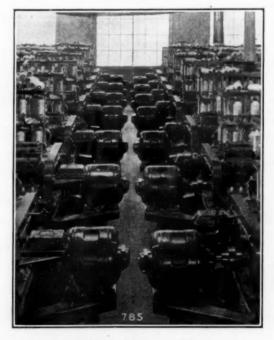
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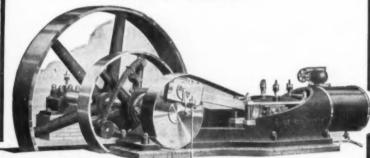
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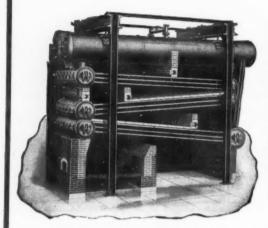
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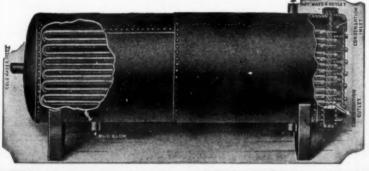
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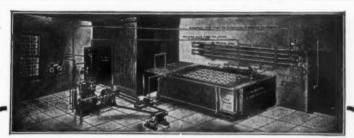


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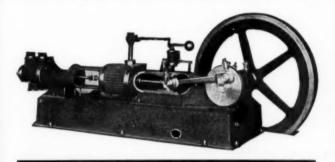


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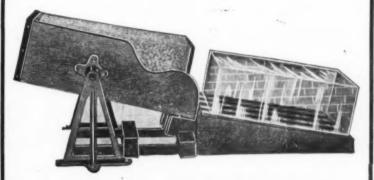
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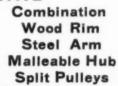
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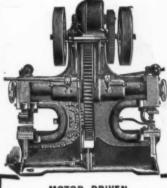


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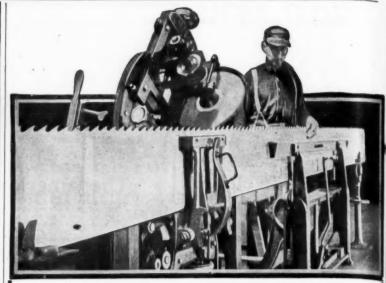
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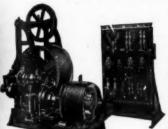
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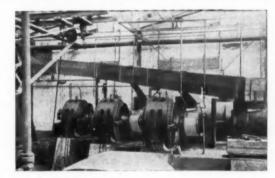
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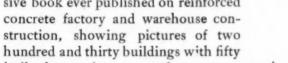
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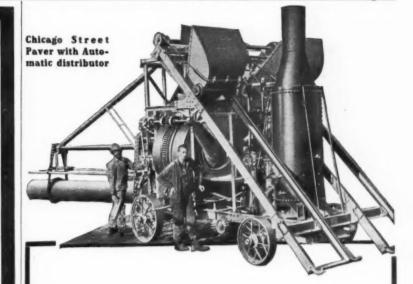
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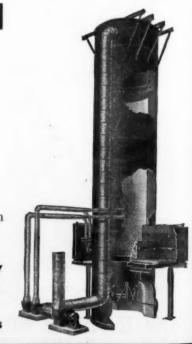
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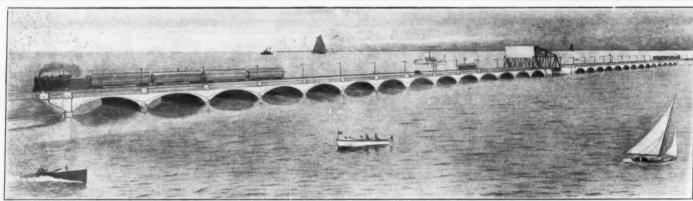
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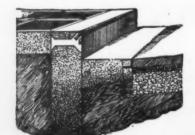
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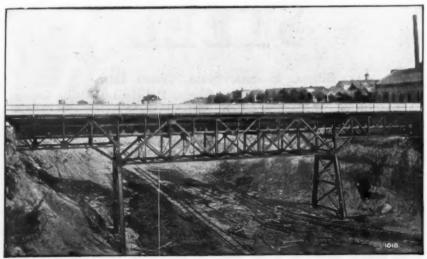
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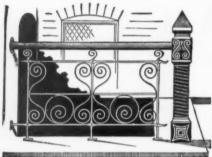
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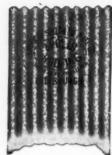
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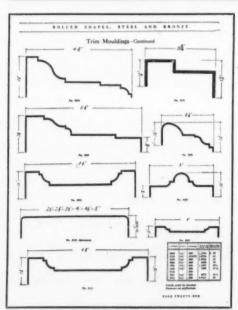
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Number of Freight Cars used in a year	175,500	- 9
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This Company could not have been successful if it had not sold its products. It can not continue to succeed if it does not continue to sell its products. Its success in the past has been due to the confidence placed in it by the buying public. Only by continuing to merit confidence can it prosper, and with this fact in mind the Company is constantly striving to widen its field of usefulness and extend its service.

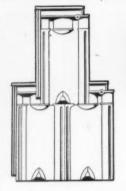


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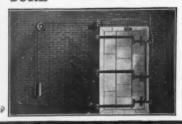
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two. a per smoot tempt The that a pletely posed

> roof. Ho

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In th black p layer o surface. two incl full thic the nails covered to preve

The s over th insepara asphalt

This proof Al You have will wear painting a Even a re burning b stood by It Pays

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A Roof Without Any Weak Spots

That is what the six-inch asphalt-cement-welded joint means to all users of

THE Wide-Weld means that each joint is six inches wide instead of only two. The Wide-Weld means a permanent union of two smooth surfaces-not an attempt to cement felt to gravel.

The Wide-Weld means that all nail-heads are completely covered-not left exposed to rust, pull out, break off, or tear loose. There are no nail-holes through the

How the Wide-Weld is Made

In the diagram at the right the black portion represents the bottom layer of one sheet of roofing, extended six inches beyond the graveled surface. The other layers extend two inches beyond the surface, giving full thickness through which to drive, the nails. This two-inch strip appears lighter in the picture, because it is covered with thin, tissue-paper tape to prevent sticking in the roll.

The sheet of roofing that lies next above on the roof is brought down over this six-inch belt and welded inseparably to it with hard mineralasphalt cement.

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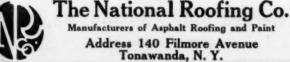
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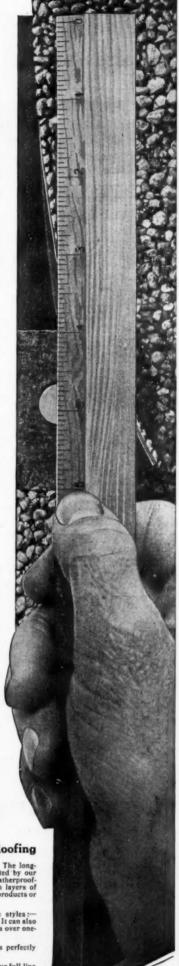
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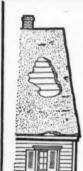
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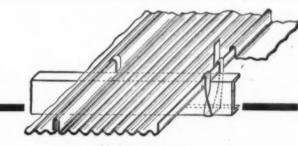
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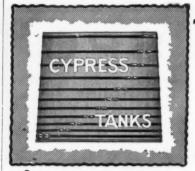
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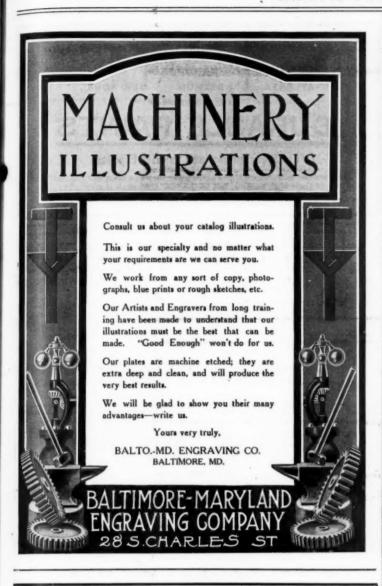
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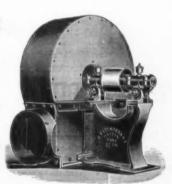
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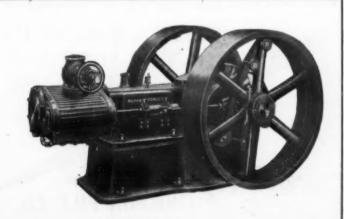
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Manufacturers Record

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

Vol. LX. No. 20.

BALTIMORE, NOVEMBER 23, 1911

\$4.00 A YEAR. SINGLE COPIES, 15 CENTS.

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BALTIMORE, NOVEMBER 23, 1911.

ELECTRO-CHEMICAL LESSON FOR THE SOUTH IN NORWAY.

Of the 10,000,000 horse-power in the streams of the South, hardly one-tenth has been chained for electrical development, and of the 1,000,000 horse-power thus made available only a small quantity has been applied to the chemical industry, materials for which teem in the South. Because of its very opulence of resources, the South has been somewhat tardy in putting them to the best effect. Moreover, it has never felt the pinch of necessity that comes to less favored regions. But a great light upon the opportunities which it is neglecting is thrown by an interesting summary of the development of electrochemical industries in Norway printed on another page of this issue. summary is made in a report by United States Consul Thomas H. Norton of Chemnitz on special detail. He tells of the drawbacks upon industry in the severe climate of Norway, its lack of coal, the inaccessibility of the minerals, and the limitations of its tillable area with less than 3 per cent, under cultivation and with 25 per cent. covered by forests, the rest of the land being moors, mountain pastures and marshes, but upon that background paints an interesting picture of the avidity with which Norway has seized upon its waterpowers in the establishment of electrochemical industries, calcium carbide, calcium cyanamide, the manufacture of nitric acid direct from the elementary gases of the atmosphere, and the production of sodium and aluminum. His

of careful study by the American eco First and foremost is the systematic and exhaustive manner in which the abundant water-power of the country is now being regulated, stored up and pressed into the service of the steadily-increasing group of electro-chemical industries. The best talent in the nation is enlisted in this cause, and the way is rapidly being opened for Norway to assume an industrial position commensu-

rate with its geographical size and admir-able facilities for maritime transportation. In another field Norway has shown her ability to develop an industry, fitting in with her enormous lumber interes and that is in the manufacture of oxalic acid. It is a source of wonder that no at-tempt has yet been made to organize this branch of manufacture in the vicinity of branch of manufacture in the vicinity of some of the great American lumber cen-ters, where sawdust, the primary raw mate-rial, is without value except as fuel. The United States buys annually oxalic acid from Norway to the value of \$45,000, and from Germany to the value of \$65,000. The American market should not be dependent upon European manufacturers for a chemical preparation of which is so comparatively simple.

For one opportunity that Norway has either in the commercial application of the science of chemistry to its mineral or timber resources, the South has one hundred, at least. Only a beginning has been made in availing itself of these opportunities. Activity and enterprise in insuring a trip through the South by the members of the International Congress of Applied Chemistry, which is to meet in this country next September, are likely not only to attract the attention of energetic foreigners to the opportunities, but to spur the South itself to larger efforts to the same end.

INCREASING DEMANDS UPON THE SOUTH'S TIMBER RESOURCES.

In 1900 the South cut 14,444,965,000 feet, board measure, or 41 per cent. of the total cut, 35,067,595,000 feet of lumber in the United States. Last year the South's cut, 21,235,437,000 feet, was something more than 53 per cent. of the total cut of the country, 40,018,282,000 feet, and 3,110,000,000 feet more than the total cut of the country in 1880. Comparison of the 1910 cut with those of 1909 and 1900 is made in the following table:

The South's Lumber Cut.

	me south a	MA OF ROLL BACK	Curr
State.	1900.	1909.	1910.
Ala	1,096,539,000	1,691,000,000	1,465,623,000
Ark	1,595,933,000	2,111,000,000	1,844,446,000
Fla	788,905,000	1,202,000,000	992,091,000
Ga	1,308,610,000	1,342,000,000	1,041,617,000
Ку	765,343,000	861,000,000	753,556,000
La	1,113,423,000	3,552,000,000	3,733,900,000
Md	183,393,000	268,000,000	154,554,000
Miss	1,202,334,000	2,573,000,000	2,122,205,000
Mo	723,754,000	660,000,000	501,691,000
N. C	1,278,399,000	2,178,000,000	1,824,722,000
Okla	22,104,000	226,000,000	164,663,000
S. C	466,109,000	898,000,000	706,831,000
Tenn	939,463,000	1,224,000,000	1,016,475,000
Tex	1,230,904,000	2,099,000,000	1,884,134,000
Va	956,169,000	2,102,000,000	1,652,192,000
W. Va	773,583,000	1,473,000,000	1,376,737,000

Total. 14,444,965,000 24,460,000,000 21,235,437,000 U. S. . . . 35,067,535,000 44,585,000,000 40,018,282,000

According to official figures there was a decrease of the cut in the country in 1910 from that of 1909 of 4,567,000,000 feet, increases being in only eight States, most of them west of the Rocky Mountains. There is not certainty in In surveying the chemical industries of this comparison, inasmuch as 1910 re-

reports from 48,112 mills in 1909, and, moreover, as 1910 figures do not include the cuts of mills sawing less than 50,000 feet during the year. But if the temporary drift of lumbering toward the Pacific Coast is fairly well indicated by the figures given, it hardly suggests any decline in the importance of the South as a producer of lumber, which has been a notable feature of the industrial life of the country for a number of years. As a matter of fact, the increase in the State of Washington, which led the country in its lumber cut in 1910, was only 52,000,000 feet greater than the increase in Louisiana, which ranked second in production in the country, and the increase in Louisiana, 181,981,000 feet, was only 52,000,000 feet less than the combined increases in California, Idaho, Montana, Arizona and Wyoming, while the 1910 cut in those five States was 1,310,415,000 feet less than the Lou-

Louisiana is one of the 17 States which in 1910 cut more than 1,000,000,-000 feet of lumber, and of the 17, Louisiana, Mississippi, Texas, Arkansas, Alabama. North Carolina, Virginia, West Virginia, Georgia and Tennessee are Southern States. Those 10 States cut nearly 45 per cent. of the total cut of the country.

This is largely explained by the large cut in those States of yellow pine lum-Of the total cut in the country, 31,160,856,000, or 77.9 per cent., were soft woods, and of these soft woods 14.-143,471,000 feet, or 45 per cent., were yellow pine. This wood was cut in 27 States, but Louisiana led in the production, its output being more than onefifth of the total, followed by Missis sippi and Texas, and 97.6 per cent. of the yellow pine was cut in the Southern States along the Atlantic and Gulf coasts from Maryland to Texas, and including Arkansas and Oklahoma.

But the South is also cutting more than half of the hard wood of the country, West Virginia. Kentucky and Tennessee cutting nearly 35 per cent. of the oak, and the South as a whote, including Missouri and Oklahoma, cutting all of the tupelo, about 95 per cent, of the red gum, 89 per cent. of the yellow poplar, 75 per cent. of the hickory, 70 per cent. of the oak, 70 per cent. of the cottonwood, 60 per cent. of the sycamore and 58 per cent, of the chestnut.

THE SOUTH THROWS AWAY MONEY.

As though there were not sufficient opportunities in the South for the investment of money, it is said that many Southern and Western people have lately been completely taken in in the purchase of town lots on Long Island. If the people of the South would only retain at home the millions of dollars that they annually throw away in wildcat schemes of one kind and another and widely-advertised, wonderful worldrevolutionizing patents, in playing the cotton market in New York, where they much in the South is immediately de-

are constantly artistically skinned, this section would get rich very much more rapidly than it is doing. About 20 years or more ago H. F. DeBardeleben, one of the great iron and coal developers of Birmingham's early days, made several million dollars by selling one of his big properties to the Tennessee Coal, Iron & Railroad Co. Flushed with a few million dollars of ready cash, he concluded to go to New York to teach the speculators in Tennessee stock how to do this on a big scale. He knew so much about coal and iron that he thought he knew something about the Wall Street speculative game. That was in the days when a number of Southern men living in New York, in combination with other Wall Street manipulators, were making the stock of the Tennessee Company a speculative football of a most disreputable character. It was before the discovery of Mesaba ores of Lake Superior had saved the Pittsburgh situation and almost overnight effected a revolution in the world's iron and steel industry. Carnegie was not then a rich man, and Pittsburgh's iron and steel future were an uncertain problem. It was many years before the germ of the United States Steel Corporation had even been dreamed of. The quickness with which DeBardeleben was "sheared," leaving not enough of his \$3,000,000 to pay his railroad-fare home, only illustrates that when the Southern man tries to play the Wall Street game he is very sure to leave all of his wool as well as his cotton, in the hands of the manipulators in New York, who understand the game a good deal better than outsiders.

INDUSTRIAL PROGRESS AIDED BY INCREASING AGRICUL-TURAL DIVERSIFICATION.

Industrial and railroad development. specially in the South, must largely depend upon the broad prosperity of the agricultural interests, for great as has been the industrial upbuilding of this section, agriculture is still the basis for the employment of the bulk of its people. It is, therefore, of significant importance that every year shows a striking advance in the diversified agricultural progress of the South, making a surer and broader foundation for general prosperity. This is strikingly illustrated in the fact that the corn crop of the South increased from 501,000,000 bushels in 1901 to 1,071,-000,000 bushels in 1911, a gain of over 113 per cent., while in the rest of the country the gain in the corn production during the same period was only 67.2 per cent. The value of the corn, oat, wheat and hay crops of the South for the past year, based on the average prices of November 1, would figure up over \$900,000,000.

The cotton crop of the South is such a dramatic fact in the annual history of American agricultural production, its importance is so world-wide and so

pendent upon it that the relative proportions of other farm products in the South are frequently lost sight of. As a matter of fact, the cotton crop represents on an average only about onethird of the results of farm activities in the South, and its billion-dollar value is matched by the aggregation of \$700,-000,000 of grain, \$200,000,000 of live stock and \$100,000,000 of fruits and vegetables. Its cotton crop has increased in volume in ten years about 44 per cent., but its corn crop has more than doubled in the same period. A few reflections of the increasing tendency toward diversification of crops appear in the following tables comparing the figures of 1901 and 1911:

Corn, Bushels.

	1901.	1911.
Alabama	27,903,000	65,970,000
Arkansas	18,702,000	59,987,000
Florida	5,213,000	9,899,000
Georgia	37,958,000	73,232,000
Kentucky		97,759,000
Louisiana	18,035,000	47,590,000
Maryland	21,298,000	25,915,000
Mississippi	22,473,000	63,251,000
Missourl	66,436,000	213,642,000
North Carolina	30,642,000	55,910,000
Oklahoma	28,207,000	46,371,000
South Carolina	11,885,000	45,522,000
Tennessee	45,130,000	95,390,000
Texas	60,051,000	96,096,000
Virginia	40,903,000	51,408,000
West Virginia	17,119,000	23,920,000
Total	501,430,000	1,071,862,000
United States	1,522,520,000	2,776,301,000

Oats, Bushels.

20.00.00.8	Por 1901 1 100 10 10 10 10	
	1901.	1911.
Alabama	3,182,000	5,702,000
Arkansas	3.136,000	3,440,000
Florida	414,000	432,000
Connels	4,390,000	7.374,000
Georgia		
Kentucky	5,379,000	2,981,000
Louisiana	426,000	777,000
Maryland	834,000	702,000
Mississippi	1,840,000	3,275,000
Missourl	10,198,000	12,168,000
North Carolina	3,648,000	3,102,000
Oklahoma	8,088,000	7,580,000
South Carolina	3,719,000	4,549,000
Tennessee	3,501,000	3,627,000
Texas	13,663,000	18,399,000
Virginia	3,718,000	3,800,000
West Virginia	1,634,000	2,097,000
Total	67,770,000	80,105,000
United States	736,809,000	873,641,000

CHICAGO CONTROL	rasionalese	- distanta
Wheat,	Bushels.	
	1901.	1911.
Alabama	1,155,000	1,630,00
Arkansas	3,127,000	2,236,00
Georgia	3,042,000	3,096,00
Kentucky	11,611,000	9,804,00
Maryland	13,315,000	12,322,00
Mississippi	38,000	108,00
Missouri	31,137,000	34,462.00
North Carolina	6,762,000	7,187,00
Oklahoma	22,983,000	8,984,00
South Carolina	2,281,000	5,632,00
Tennessee	13,094,000	10.546,00
Texas	6,062,000	11,665,00
Virginia	9,680,000	9,552,000
West Virginia	4,534,000	4,646,000
(Poto)	128,821,000	121,870,000
Total		
United States	748,460,000	655,516,000

Chiten Blates	. 3013001000	one in raina
Hay	Tons.	
	1901.	1911.
Alabama	102,000	180,000
Arkansas	91,000	230,000
Florida	22,000	23,000
Georgia	141,000	117,000
Kentucky	684,000	428,000
Louisiana	44,000	32,000
Maryland	387,000	199,000
Mississippi	84,000	155,000
Missouri	1,857,000	1.458,000
	244,000	169,000
North Carolina	312,000	640,000
Oklahoma		
South Carolina	89,000	69,000
Tennessee	596,000	400,000
Texas	553,000	606,000
Virginia	652,000	280,000
West Virginia	746,000	428,000
Total	6,604,000	5,414,000
United States	50,591,000	46,969,000

Seasonal conditions are so change able from year to year and so varied in different parts of the country in particular years that the figures of crop production for any two years are not always a fair basis for a measure of expansion. For example, in 1910 the increase over 1909 of the corn crop in the South was half the increase of that crop in the whole country, and, with decreases of the wheat and hay crops in the rest of the country, those crops notably wheat, increased in the South. This year there were decreases under 1910 in the crops of corn, wheat, oats, barley, rye and hay in the whole country, and all of them were below the

average crops of the five-year period between 1905 and 1909. These facts should be kept in mind in noting that with the hav crop in the rest of the country decreasing between 1901 and 1911 from 42,987,000 tons to 41,555,000 tons, or 5.5 per cent., it decreased in the South from 6.604,000 tons to 5,414,-000 tons, or 19.8 per cent., and that with the wheat crop in the rest of the country decreasing from 619,639,000 bushels to 533,646,000 bushels, or 13.9 per cent., that crop in the South decreased from 128,821,000 bushels to 121,870,000 bushels, or 5.4 per cent.

In the same period the South's corn crop increased from 501,430,000 bushels to 1,071,862,000 bushels, or by 570,432,-000 bushels, equal to 113.7 per cent., while the crop in the rest of the country increased from 1,021,090,000 bushels to 1,704,439,000 bushels, or by 682,749,-000 bushels, equal to 67.2 per cent.

The increase in oat production was at about the same rate in the South and in the rest of the country. The crop in the South increased from 67,-770,000 bushels to 80,105,000 bushels, or by 12,335,000 bushels, equal to 18.2 per cent, and in the rest of the country the increase was 124,497,000 bushels, from 669,039,000 bushels to 793,536,000 bushels, which was at the rate of 18.6 per cent.

At the average prices as of November 1, 1911, this year's Southern corn crop is worth \$693,500,000, its oat crop \$35,-000,000, its wheat crop \$110,500,000 and its hay crop \$78,000,000, a total of \$906,500,000.

A FRANK CONFESSION.

From a lead and zinc mining operator in Joplin, Mo., comes a letter which

Enclosed is check for my subscription, Should have sent this sooner, but am too blamed lazy and careless about such things. Everyone in the office likes the MANUFACTURERS RECORD, and I should say at least 15 people read this one copy.

We wonder if some of the fifteen peo ple who are borrowers of this subscriber's copy would not, if they seriuosly thought over the situation, con-clude that they are like the writer of the letter, and admit that they have been a little careless about sending in their own individual subscription? Of course, every last man of the fifteen intends to subscribe, for every one of them realizes that the MANUFACTURERS RECORD is worth to him far more than the cost; but, perchance, they have been just a little "lazy and careless" about sending their check along. And the interesting part of this Joplin letter, indicating that our subscriber is perhaps just a little slow in doing things, is that his letter, which has just been received, is dated September 14. We do not know whether it took nearly two months in which to mail it or whether Uncle Sam's belated mail is responsible for so slow a journey from Missouri to Baltimore.

Another letter, which expresses, if in different language, a somewhat similar opinion about the MANUFACTURERS REC-ORD is from the Chamber of Commerce of Bowie, Tex., the secretary of which writes:

Enclosed find check for \$4 for one year's abscription to the Manufacturers Record At a recent meeting of the board of directors they expressed themselves unanimously as considering the money spent for the MANUFACTURERS RECORD one of the best investments made by the organization.

Moral to others: Go thou and do

NEGRO PROBLEM SETTLING IT-SELF.

The negro problem of the South, and consequently of the country, is settling itself, in spite of deliberate efforts to prevent the right solution and of misdirected enthusiasm tending to obstruct the course of natural law. The solution lies in the gradual diffusion of the negro race among the population of the whole country until the point is reached where the individual negro will stand or fall upon his own merits or demerits, and will cease to be the victim of special theoretical philanthropies or particular repressions consequent upon the traits of the race that cannot be eliminated as long as its members are massed in large numbers anywhere.

The census of 1900 showed that in the preceding 10 years there had been a steady migration of the negroes from the 14 Southern States as a whole. In 1860, when there was a decided tendency for a drift of the negroes from the upper tier of Southern States toward the Southwest, there were 4,441,739 negroes in the country, of whom only 366,161, or 8.2 per cent., were living outside the area now embraced in the 14 Southern States. In 1900 there were 8,833,994 negroes in the country, but of them 997,406, or 11.3 per cent., were living outside the South. In 1910 the number of negroes living outside the South was 1,247,697, or 12.7 per cent. of the total number in the country, 9,828,294.

While there is still a shifting of some of the negroes of the South toward the Southwest, the movement that has placed about 1,500,000 of them outside the South is indicative of the strong tendency toward a distribution of them in a way beneficial especially to them. The changes that have taken place within individual Southern States in the past 10 years are reflected in the following tables, giving the white population and the negro population in 1900 and 1910 and their increases:

White.

				Inc.
States.	1900.	1910.	Increase.	P. C.
Ala	1,001,152	1,228,841	227,689	22.7
Ark		1.131,030	186,450	19.7
Dist. Col.		236,128	44,596	23.3
Fla		443,646	146,313	49.2
Ga	1.181,294	1,431,816	250,522	21.2
Ку	1,862,309	2,027,955	165,646	8.9
La	729,612	941,125	211,513	28.9
Md	952,424	1,062,645	110,221	11.6
Miss	641,200	786,119	144.919	22.6
N. C	1,263,603	1,500,513	236,910	18.7
S. C	557,807	679,162	121,355	21.8
Tenn	1,540,186	1,711,433	171,247	11.1
Tex	2,426,669	3,204,896	778,227	32.1
Va	1,192,855	1.389,809	196,954	16.5
W. Va	915,233	1,156,817	241,584	26.4
Total	15,697,789	18,931,935	3,234,146	20.6
U. S	66,809,196	81,732,687	14,923,491	22.3

	7	egro.		
States.	1900.	1910.	Increase.	Inc. P. C.
Ala	827,307	908,275	80,968	9.8
Ark	366,856	442,891	76,035	20.7
Dist. Col.	86,702	94,446	7,744	8.9
Fla	230,730	308,669	77,939	33.8
Ga	1,034,813	1,176,987	142,174	13.7
Ку	284,706	261,656	*23,050	•8.1
La	650,804	713,874	63,070	9.7
Md	235,064	232,249	*2,815	41.2
Miss	907,630	1,009,487	101,857	11.2
N. C	624,469	697,843	73,374	11.7
S. C	782,321	835,843	53,522	6.8
Tenn	480,243	473,088	*7,155	*1.5
Tex	620,722	690,020	69,298	11.2
Va	660,722	671,096	10,374	1.6
W. Va	43,499	64,173	20,674	47.5
Total	7,836,588	8,580,597	744,009	9.5
U. S	8,833,994	9,828,294	994,300	11.3
*Decreas	e.			

For the whole South the increase in the 10 years was from 15,697,789 to 18. 931,935, or by 3,234,146, equal to 20,6 per among the whites, and from 7,836,588 to 8,580,597, or by 744,009, equal to 9.5 per cent., among the negroes. The increase in the rest of the country was from 51,111,407 to 63,800, 752, or by 12,689,345, equal to 24.8 per cent., among the whites, and from 997, 406 to 1,247,697, or by 250,291, equal to 25.1 per cent., among the negroes.

The rate of increase of negroes out-

side the South was more than double the rate of increase of that race in the country. The explanation is migration of negroes from the South, just as immigration from abroad is partly the explanation of the white population of the rest of the country outside the South showing a greater rate of increase than the rate of increase of the white population of the whole country, Between 1900 and 1910 there was an increase in the foreign-born whites in this country of 3,129,766, or 30.6 per cent., and by far the greater part of that inrease was included in the increase of 12,689,345 among the whites outside the In 1890 there were more ne groes than whites in the populations of Louisiana, Mississippi and South Caro. lina. In 1900 the white population had become larger than the negro in Louislana, and in 1910 in both Mississippi and South Carolina the proportion of negroes to whites had become much less han in 1900.

The rate of increase in the white opulation for the whole South between 1900 and 1910 was 20.6 per cent. That rate was exceeded in Alabama, where the rate was 22.7 per cent.; Florida, 49.2 per cent.; Georgia, 21.2 per cent.; Louisiana, 28.9 per cent.; Mississippi, 22.6 per cent.; South Carolina, 21.8 per cent.; Texas, 32.1 per cent., and West Virginia, 26.4 per cent., and the rates in seven of these States were greater than the rate of increa in the white population in the whole country.

On the other hand, the rate of increase in the negro population in the South, 9.5 per cent., was less than the rate of increase in the whole country, and only five Southern States had rates of increase among negroes greater than the rate for the whole country. Those States were Arkansas, 20.7 per cent.; Florida, 33.8 per cent.; Georgia, 12.7 per cent.; North Carolina, 11.7 per cent., and West Virginia, 47.5 per cent. Three States showed actual decreases in negro population, Kentucky 23,050, Maryland 2815 and Tennessee 7155. These decreases, together with the slight increases of 1.6 per cent, in Virginia and 6.8 per cent. in South Carolina, far below the average rate for the whole South, together with the large increases in Florida and West Virginia, paralleling in some respects the increases in white population in those States, suggest two distinct movements of the negro population, one of a temporary character toward sections in the South where there are new developments on a large scale calling for common labor, and the other of a permanent character to points outside the South, with the border States like Maryland, Virginia and Kentucky forming the line of difference between the two. The inclination of negroes to leave the rural districts of the South for the cities is a part of a general move of the kind which has been marked in the South, as in other parts of the country during the past 10 or 20 years, but in the case of the negroes this cityward inclination is likely to carry them beyond the cities of the South and into other sections.

CAUSE AND EFFECT.

J. D. McLean, first vice-president of the Carolina Bank & Trust Co. of Red Springs, N. C., writing under date of November 15, says:

Enclosed find check for \$6 covering sub-scription for 1912 and one copy of "Thirty Years of Southern Upbuilding." I regard a subscription to the Manufacturers Record very much like the payment of a minister's salary—a duty which is also a pleasure.

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However, it is only fair to state that during the several years I have been a subscriber I have made the amount of my subscriptions several hundred times over in information secured from its columns.

James C. Lawrence, chemical engineer, Memphis, Tenn., writes:

I am obtaining gratifying results from the two-inch insertion already, having been in receipt of communications desiring chemical engineering services from Ohio, Mississippi, Louisiana and Tennessee, after having only three issues of your paper carry my card.

INCREASING INDUSTRIAL AND RAILROAD ACTIVITY.

Striking signs of increasing activity are everywhere in evidence, showing that the South is destined in the near future to e into its own. The broad investment and development movements which are underway, despite some adverse conditions for which the low price of cotton and political agitation are responsible, show that the trend of capital is toward the South; that this section is rapidly diversifying its industrial and agricultural interests, and that railroad-building and expansion are being taken up here and there on a scale which promises to greatly increase the fransportation facilities of this section.

Typical of the industrial and railroad activities of the South during the week are a few out of the many reports published in this issue of the MANUFACTURERS REC-ORD. The Virginian Railway has let contracts for reinforced concrete lining of tunnels to cost from \$800,000 to \$1,000,-000; the Oriskany Ore & Iron Corporation has bought a site near Lynchburg, Va., on which to build a 125-ton iron furnace, and in conection therewith a nodulizing plant for recovering the iron ore contained in the waste cinders from the pyrites used in the making of sulphuric acid at many points in the South. This will be the first entirely new iron furnace plant of importance that has been built in the South for a long time. In connection with it important ore properties have been purchased, and the plan for utilizing the waste product of the pyrites ores used in making sulphuric acid is an important addition to the diversification of Southern industries. The Standard Portland Cement Co., Alabama, will double the capacity of its plant to increase its output from 1200 barrels a day to 2400 barrels, at an estimated cost of \$500,000. The Central Georgia Transmission Co. of Macon, with a capital stock of \$2,000,000, has been organized in connection with the hydro-electric developments in and around Macon. A \$250,000 company to manufacture chemical products has been organized in Alabama; an \$880,000 electric-light and power company in Texas; a Louisville firm increased its capital stock by \$750,000 for the purpose of purchasing additional timber lands in Mississippi and Louisiana; a coal company with a capitalization of \$100,000 has been organized to operate in Kentucky; a \$100,000 coal company in West Virginia, and a \$100,000 machine shop and marine railway company at Wilmington, N. C. The Louisville & Nashville Railroad has become interested with the Frisco in the control of the New Orleans, Mobile & Chicago Railroad, and it is contemplated to extend the latter south in Mississippi to a connection with the Louisville & Nashville on the Gulf Coast for an entrance New Orleans, and on the north from Middleton, Tenn., to Jackson, on the Nashville, Chattanooga & St. Louis Railway, which the Louisville & Nashville controls, the purpose being to make a new through line from Chicago to New Orleans via Paducah, Ky., where the

to the railroad expansion work in the South.

The Norfolk & Southern Railroad has acquired three small railroads in the center of North Carolina, which will add a total of 225 or 250 miles to its system, that is now about 600 miles long. An extension to Concord, and possibly to Charlotte, is contemplated.

These illustrations of industrial and railroad activity reported for the week give some indication of the sweep of activity that is gradually rising throughout the South.

GEORGIA MINERALS.

Georgia now produces 23 different kinds of minerals in commercial quantities, to the aggregate value of about \$6,000,000 a year. The State has an efficient geological survey, with S. W. McCallie at its head. It has already issued 27 bulletins dealing with special features of the State's mineral resources, and a convenient complement to them is a handbook of size small enough to fit the vest pocket, giving, with illustrations, a brief description of asbestos, barytes, bauxite, cements, clays, coal, copper, corundum, fuller's earth, gold, granites, graphite, iron ores, limestones, manganese, marbles, marls, mica, ochre, precious stones, pyrite, road materials, sand and gravel, serpentine, slate, tale and soapstone, tripoli, mineral waters, artesian waters and water-powers of Georgia. An immense amount of information is condensed in the 40 pages of this publication, and each topic is accompanied by references to the survey's publications. in which it is more fully discussed.

FOR A FURNACE IN VIRGINIA.

Also Nodulizing Plant to Handle Pyrites Cinder.

Oriskany Ore & Iron Corporation, Covington, Va., November 20. Editor Manufacturers Record:

On Thursday last final papers were delivered in New York by which we acquire about 70 or 80 acres of land three miles west of the center of Lynchburg, on the Chesapeake & Ohio Line, the same being within switching limits of the Chesapeake & Ohio, Norfolk & Western and Southern railways. We expect to commence at once the erection of a 125-ton blast furnace along the line of the furnace at Buena Vista, which we have been operating for nearly three and a half years, and we expect also to install a nodulizing plant, type not yet determined, for the nodulizing of about 100 tons per day of pyrites cinder that we have under contract from a number of the independent fertilizer operators at Charleston, S. C. This cinder is made from Spanish ore. Mr. W. W. Taylor, vice-president and general manager, Clifton Forge, Va., has charge of the actual construction of the plant.

This company owns all the capital stock of the Barr Ore and Iron Corporation, which includes the holding of said Barr company prior to the buying by us of said stock about one year ago. Since that time we had added extensively to the holdings of the Barr company, and now control some 2000 acres of brown hematite ore at or near Pittsville, in Pittsylvania and Bedford counties, on Franklin branch of Southern Railway. Contiguous to the hematite we have about 1000 acres of magnetite. We do not expect to mine this extensively now, as it is about the same analysis of the nodulized cinder we expect to use. The cinder when nodulized runs about 65 per cent. in iron, and is of low sulphur and low phosphor. The Barr ore is high manganese and high phosphor. The mixture will give us high manganese low phosphorus iron. We have about 10,-Ohio River will be crossed by a bridge to be erected. This move will add largely Visfa now. R. L. Parkish, President. 000 tons of metal on the banks at Buena

IN RICH DELTA LAND.

About \$400,000 for Improvements in One Plantation Property.

Mississippi Delta Planting Co., Memphis, Tenn., November 16.

Editor Manufacturers Record:

As president of the Lake Vista Plantation Co., the Triumph Plantation Co. and the Mississippi Delta Planting Co., in regard to developments of Bolivar and Washington counties' lands, we desire to say that this year we have spent upwards of \$400,000 in the improvements upon this property, like the building of stores, oil mill, water-works, town, new cabins, repairing old cabins, ditching and tiling, etc. We intend to continue this development until our property attains a high state of cultivation.

We are great believers of the ultimate high values of the Mississippi Delta lands, and think the planter who has courage and is full of fight and willing to work cannot help but succeed in making the Mississippi Delta in the near future the garden spot of the world.

L. K. SALSBURY, President.

HEAVY CONCRETE TUNNEL WORK

A Contract for Between \$800,000 and \$1,000,000.

Roanoke, Va., November 20.

Editor Manufacturers Record:

We have been awarded by the Virginian Railway a contract for the lining of 18 tunnels with reinforced concrete. The tunnels are located in Virginia and West Virginia. Approximate cost, between \$800,000 and \$1,000,000. Engineer in charge, Mr. A. M. Traugott, Glen Lyn, Va. Work will be started at once, using from two to three plants; time allotted for doing work, four years. The work will be done with standard-gauge equipment, and we will be in the market for some.

W. W. BOXLEY & Co.

LITTLE TENNESSEE POWER.

To Be Developed for Extracting
Aluminum from Kaolin.

[Special Dispatch to Manufacturers Record.]

Asheville, N. C., November 22.

The Aluminum Co. of America of Pittsburgh is interested in developing the water-power in the Little Tennessee River Gap, west of here. It has a force of men co-operating with the railroad in relocating surveys. It is stated that the company expects to extract aluminum from low-grade kaolin, of which there is abundance.

\$500,000 Cement Plant Enlargement

The Standard Portland Cement Co. of Leeds, Ala., will double the capacity of its Portland cement plant, increasing it from an output of 1200 barrels daily to 2400 barrels. Mr. J. Ross Hanahan of Charleston, S. C., who is president of the company, wires the MANUFACTURERS RECORD of this proposed enlargement, and reports that it will include three large kilns with steel buildings and steam turbine power, the work to be completed during the summer of 1912. It is reported that these impovements will cost about \$500,000.

Contract for 300,000 Tons Coal.

[Special to Manufacturers Record.]

Birmingham, Ala., Nov. 21.

A contract has been awarded by the New Orleans Railway & Light Co. of New Orleans to Frank Nelson, Jr., for 300,000 tons of coal, 280,000 tons from

the Alabama Consolidated Coal & Iron Co., deliveries commencing December 17, 1911, and ending December 17, 1913, and 20,000 tons from the Empire Coal Co.'s mines at prices which include delivered in storage bins at New Orleans.

H. S. MATTHEWS.

TO SHOW SOUTHERN RESOURCES.

Opportunity for the South in the International Congress of Appiled Chemistry.

· Prof. William L. Dudley of Vanderbilt University, Nashville, Tenn., who represents the States of Arkansas, Louisiana, Texas, Kentucky, Tennessee, Mississippi, Alabama, Georgia and Florida, for the purpose of making up a list of the places of interest and securing permission to visit them for the International Congress of Applied Chemistry, which meets in this country in September, 1912, writes to the Manufacturers Record

"It is the desire of the executive committee of the congress not only to visit places where the raw materials are obtained, but also to visit the industries where these raw materials are made into finished products. We cannot promise that we will visit all places to which we are invited, because it might involve too much time and expense, and the excursion party might not be interested, but we wish to have a long list of industries placed at our disposal so that an attractive program can be made out by the general committee which will make the selection.

"Much depends on what we can offer in this country to attract the foreigners to the congress, and much depends on what we can offer in the South to attract those who do come to our section of the country, away from the great industrial centers in the North. Several excursions will be run to different parts of the country, and the members of the congress must, make their own selection as to which excursion they will elect.

"I am sure you will do everything in your power to stir up our chemical industries and cities, as you have done so far, but I desire to request you to aid us in a vigorous campaign which will not end until the excursion is completed next September.

"The members will be specially interested in the iron, steel, mineral oil, cotton oil, phosphate, fertilizer, sugar, rice, sulphur, cement, copper, pyrites and allied industries."

J. A. Pride, general industrial agent Seaboard Air Line Railway, Norfolk, Va., writes with reference to the attraction of Great Falls. South Carolina:

"Not only are the water-powers developed on a gigantic scale and the current transmitted over long-distance lines to the manufacturing sections of the Carolinas, but the current is applied to manufacturing cotton goods immediately at the development, and there has been an addition installed adjunct to this development—Southern Electro-Chemical Co.—to produce from air nitrate acid and nitrate of lime by the use of primary electric currents. This plant was imported as a whole from the Continent of Europe and is destined to play an important part in the agricultural development of the South.

"This section is rich in historical reminiscences. The Great Falls of the Catawba were the fishing grounds of the early Waterce and Catawba Indians. The shad running up stream to these falls were annually caught in great numbers by the aborigines. The Valley of the Catawba, say from point about opposite Gen. Andrew Jackson's birthplace to where the stream takes the name, 'Waterce,' near Camden, is a beautiful situation, and as early as 1700 John Lawson, an English-

man, traversed this section, and in his history speaks appreciatedly of the desirable native conditions.

"The State of South Carolina endeavored to build a canal around these falls in order that her planters might reach Charleston by the use of the river, this being the only mode of transportation in the State. About \$3,000,000 was spent in the construction of the canal, and the masonry in many places is intact today and is of splendid quality.

"Through the columns of your valuable journal I have recently called attention to the very valuable clay deposits along this river immediately contiguous to the supply of reasonably-priced electric power, and the fact that the value of clay products in South Carolina does not reach \$1,000,-000 annually, while the clay products in the State of Pennsylvania reaches to about \$22,000,000 annually. There is along this river a very valuable clay, and it has been worked to some extent in the manufacture of common clay products. The native Indian has added to his means of support by manufacturing a little pettery by a crude process.

J. M. Mallory, industrial agent Central of Georgia Railway Co., Savannah, Ga., writes:

"I appreciate your letter of the 9th, calling attention to editorial in the current issue of the Manufacturers Record concerning the coming meeting in Washington next year of the International Congress of Applied Chemistry. I had already read the editorial, and agree with you as to the importance of inducing the members to visit the South. While it is too early to determine anything of a practical nature along this line, I will be glad to keep the matter before me."

T. M. Emerson, president Atlantic Coast Line Railroad Co., Wilmington, N. C., writes;

"I think your suggestions are, as usual, good, and I have asked our people to take up with Dr. Penniman, who, I understand, represents the seaboard States of the South, and see what is necessary to be done to enable delegates to the convention to visit our section."

Addison R. Smith, third vice-president Louisville & Nashville Railroad Co., Louisville, Ky., writes:

"We shall be pleased to co-operate in every way practicable in bringing to the attention of the foreign members of the Chemistry Congress the resources and advantages of the South."

Mr. J. J. Campion, vice-president and traffic manager Carolina, Clinchfield & Ohio Railway, Johnson City, Tenn., writes:

"This company will gladly co-operate in an effort to induce the delegates to this convention to visit the South. I have read your editorial with a great deal of interest."

C. S. Markham, president of the Illinois Central Railway Co., Chicago, Ill., writes:

"I shall take the matter up and advise you in due course concerning same. In the meantime, you may rest assured that we shall be very glad to do what is consistent to make the meeting a success and have it well attended."

W. W. Finley, president Southern Railway Co., Washington, D. C., writes:

"I can assure you that we shall be glad to do whatever we reasonably and properly can to aid in this matter. I have endeavored to get into communication with Mr. David T. Day of the United States Geological Survey, who is a member of the executive committee having the arrangements in charge, but he has been absent from Washington. I understand he will be here next week, and shall take the matter up with him."

Chemical Industries

of Norway.

By United States Consul THOMAS H. NORTON.

Numerous factors have combined to retard the industrial progress of Norways. The climate is severe, coal is lacking, the mineral deposits are not easily accessible, the area of tillable land is very limited, and the industrial education of the people is not advanced.

Notodden, and the Alby United Carbide Factories at Odda, are two other large English undertakings. At Trondhjem the Meraker Carbide and Smelting Works have added to their extensive works plants for producing ferro-chrome and ferro-titanium. The seven carbide works employ a total of

Less than 3 per cent. of the land is under cultivation, about 25 per cent. is covered by forests, and the remainder consists essentially of moors, mountain pastures, lakes and marshes. The conditions of life have been comparatively hard, and emigration extensive. Exports to other countries have been limited chiefly to timber and the products of the extensive fisheries.

There is, however, now a marked change for the better. Norway bids fair to develop into an industrial state of considerable importance, and the chemical industries are the ones coming most prominently to the fore in the movement. The first step forward was taken in the development of the wood-pulp industry. The second, and most important for Norway's future, was the utilization of the country's magnificent water-power for the establishment of electro-technical and, more especially, of electro-chemical industries on a scale impossible in any other European land.

It is in the recent establishment of electro-chemical industries upon a grand scale that Norway has disclosed her latent power as a coming factor in the field of applied chemistry. The vast, hitherto almost neglected, water-power is now being harnessed, one factory after another is coming into existence, and soon the Kingdom will present a remarkable exhibit of varied chemical industries, contributing largely to the world's markets and enriching rapidly the land.

This change began in 1899, when the first calcium carbide factory was built. The number of works has steadily increased until now there are seven in operation. In 1905 the first air-nitrate works began operation. Now a second on a much larger scale is about to open, and others are planned. In addition, there is a factory for cyanamide, one for sodium, one for aluminum, one for nickel, one for ferro-silicon and one for electro-steel. There are also several smaller experimental plants. The products of these factories exported in 1910 had the following values: Calcium carbide, \$1,627,000; calcium cyanamide, \$184,000; calcium nitrate, \$507,000; sodium nitrate, \$58,000; sodium nitrite, \$309,000; aluminum, \$437,000; sodium, \$63,000; ferro-silicon, \$192,000; total \$3,377,000.

The exported products in the above categories were valued at \$2,717,000 in 1909. The annual increase at present in the value of electro-chemical products, as far as it can be measured by export statistics, is thus \$660,000.

The manufacture of calcium carbide was the pioneer electrical industry in Norway, and considerable English capital has been invested in this branch. A French company operates one plant at Hafslund. The Kellner Partington Paper Pulp Co. at Borregaard is a good example of foreign investment in Norway. The company utilizes 24,000 horse-power, and employs 3000 workmen in its carbide factory, ferrosilicon works and large pulp mill. It is the largest industrial establishment in the Kingdom. The Albion Products Co. at

*From Daily Consular and Trade Reports.

Factories at Odda, are two other large English undertakings. At Trondhjem the Meraker Carbide and Smelting Works have added to their extensive works plants for producing ferro-chrome and ferro-titanium. The seven carbide works employ a total of 60,000 horse-power. They are all located on the coast or on navigable rivers, and manufacture almost exclusively for exportation. In 1910 they shipped 50,579 metric tons at an average price of \$32.16 per ton. The average daily yield per horsepower is roughly estimated at 21/3 kilos, or 843 kilos in the year. In German factories the yield ranges from 3 to 5 kilos, as compared with a theoretical maximum of kilos. The equipment of the carbide factories in Norway is essentially the same as that of the American factories.

An English company, the Northwestern Cyanamide Co., has built large works at Odda, on the Hardanger Fjord, and established on a successful basis the manufacture from atmospheric nitrogen of calcium cyanamide, which is competing with Norwegian calcium nitrate for recognition as the most economic form in which the air can furnish nitrogenous compounds for the needs of agriculture. The firm shipped 752 metric tons in 1909 and 4281 tons in 1910. The price is \$42.88 per metric ton. The industry is evidently on a firm footing, and finds a market for its products, as do the similar works in Germany.

At Notodden in 1905 the first factory for manufacturing nitric acid directly from the elementary gases of the atmosphere was erected. In an enlarged form it now gives occupation to 500 workmen, and is daily demonstrating the remarkable possibilities of this new factor in chemical industry and in economic evolution. The factory furnishes all the nitrates required by Norway in agriculture and the arts, and is shipping constantly increasing quantities to foreign countries. The exports for two years were as follows: 1909, calcium nitrate, 9422 tons; sodium nitrite, 2577 tons; sodium nitrate, 592 tons: 1910, calcium nitrate, 13.531 tons: sodium nietrite, 3200 tons : sodium nitrate, 1074 tons.

During 1911 the manufacture of ammonium nitrate for use in making explosives has been introduced upon a large scale, as it is profitable at present prices. Ammonia is imported from England, and after conversion into the nitrate is shipped back. A much larger factory is nearing completion at Saaheim, and will be put in active operation before the close of 1911:

A single factory at Vadheim, on the west coast, is manufacturing sodium very successfully. The export in 1909 was 179 The price is \$0.536 per kilo, or \$0.243 per pound. The process employed is that of the direct electrolysis of fused anhydrous caustic soda. Fusion vessels and cathode are of iron, and the anode is of nickel iron. The success of the operation depends largely upon the pains taken to keep the temperature of the bath within the narrow limits of 310 degrees to 330 degrees C. and the rapid removal from the cathode of the liberated metal. There is an increasing demand for sodium for use in making sodium cyanide, sodium amide, and especially sodium peroxide.

One large factory at Christianssand is devoted to the electrolytic production of aluminum. The process is practically identical with that employed in the large American works. The export of the metal was 486 metric tons in 1909 and 1019 tons in 1910. This is equivalent to one-ninth of the annual American production. The Norwegian aluminum is sold at \$0.43 per kilo. A considerable amount is employed in equipping the air-nitrate works, as the large conduits for acid gases and the piping for nitric acid are all made of this metal.

The demand for ferro-silicon, so indispensable in the modern metallurgy of iron, is rapidly growing, as shown by the exports from both Norway and Sweden to other countries. In 1909 Norway shipped 2645 metric tons abroad; in 1910 the export reached 5121 tons. Much of the output is made in the electric furnaces at Borregaard.

Norway possesses extensive deposits of nickel ore, much of it containing as high as 2 per cent. of the metal. In former years nickel mining was of some importance, but competition with the richer ores of Canada and the United States could not be maintained, and most of the mines ceased operation. During the closing decade of the last century the annual production of nickel sank to 7 tons. Since 1900 the industry has revived, and there is an annual output now of 70 tons, nearly all of which is used in the Kingdom. In 1909 the only mine worked, that of Eije, yielded 5770 tons of ore containing 1.1 per cent, of nickel. In the smelting works 2.77 tons of matte are obtained from 100 tons of ore. This matte contains 40 per cent, of nickel and 25 per cent, of copper, It is refined in the new electrolytic works at Christianssand, which are equipped for an annual production of 400 tons of the metal. The production of electrolytic nickel is a much more complicated operation than are those yielding aluminum or sodium. The copper-nickel matte is used as anode in a weak acid bath. Both metals are dissolved and pure copper is deposited . on the cathode. At a certain point, when the electrolyte contains in solution a relatively large percentage of nickel, the current is interrupted. The remaining copper is first removed from the solution (by hydrogen sulphide) and then the iron is removed with the customary precipitants. From this purified and heated solution nickel is deposited electrolytically, insoluble anodes being used. The electrolytic nickel has a high degree of purity and is fairly compact. The total consumption of electricity is relatively large and the process can be employed with advantage only where the cost of the current is exceptionally low, as is the case in Norway.

The success which has followed the experimental trials of the Gronwall furus for the electric smelting of iron ores, first at Domnarfyet, in central Sweden, and later on a larger scale at Trollhattan, near Gothenburg (see Daily Consular and Trade Reports for May 6, July 19 and October 14, 1911), has demonstrated beyond question the economic and technical advantages of this new process. Norsk Electrometal Co. has promptly secured patent rights for Norway, and two companies are now constructing electric iron-smelting works under their licenses The Hardanger Electriske of Staalwerk is erecting two furnaces at Odda that will use 5800 horse-power from the Tysse fall. The company controls in all 15,000 horse power at this point. At Arendal the Arendals Fosse-Compagni is building furnaces that will utilize 6000 horse-power, and is able to increase it to 30,000.

A somewhat different type of smelter is under construction near Notodden by the Tinfoss Jernoers Aktieselskab, which will use at first 5000 horse-power and can increase it, if necessary, to 15,000. Unquestionably within a few months the electric manufacture of an excellent grade of iron will be established in Norway on a good working basis.

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The electric smelting industry promises much for the country. In earlier years Norway possessed a flourishing iron industry, but saw it gradually decline as the fuel became more and more expensive. The land is rich in iron deposits, most of which are too remote to permit of advantageous mining at present. The Norwegian magnetite is not rich enough to warrant its export, and it is too hard for English smelters. If exported at all, it must usually be previously concentrated and briqueted, involving considerable expense. This magnetic iron ore, however, frequently contains sufficient lime to be selffluxing. When adequate and cheap water-power is near the mines, not only the magnetic ore, but the low-grade ores not worked at all now can easily be turned into first-class steel billets and offer a large margin of profit at present prices. It may be that Norway will rank eventually among the prominent iron-producing countries of Europe, as but little is known about the full extent of its mineral wealth, especially in the northern less accessible regions.

Active steps are also being taken to ntroduce the electric steel furnace. The Hardanger company is installing one requiring 800 horse-power, and other plans are on foot. The fine grade of iron obtained from an electric smelter with the use of charcoal is almost free from manganese and silicon. If brought into a mixer, heated with gas and then refined in an electric furnace, the steel produced should be of an exceptional quality.

All of these plants and projects are de ndent upon the continuance of the cheap rate for water-power in Norway. In Sweden the cost per annual horse-power is apt to range above 50 crowns, or \$13.40. In Norway rates vary usually between \$5.40 and \$10.70. There are some cases where the cost is even as low as \$4.

In addition to the foregoing enterprise Norwegian capitalists are discussing the establishment of electric works for zinc smelting, for nickel smelting, and for the combined electric smelting of copper ores and the electric refining of the metal.

In regard to most chemical products Norway is still largely dependent upon other countries. Apart from her electrochemical industries, there is a fair development of the manufacture of matches. cellulose, fertilizers, oils, candles, jodine and oxalic acid.

The utilization of kelp as a source of iodine and potash salts continues to be a prominent industry on the shores of Norway. As in the case of Scotland, Normandy and Japan, conditions seem to enable this time-honored branch still to maintain the competition with Chile iodine. In view of the exhaustion, within a measurable time, of the Chile nitrate deposits, it is well that the kelp industry is kept alive, and that studies are made to perfect its processes. There are nine establishments along the Norwegian coast occupied with this branch. Besides supplying the home demand, they exported in 1910 iodine to the value of \$53,000 and 2318 metric tons of kelp ash, valued at \$64,000 (metric ton equals 2204.6 nds). The current price of the latter \$27.34 per metric ton. Less is done in Norway than in Scotland to extract in a mercial form potash salts from this ash, although all of the kelp works furnish potash fertilizers.

One large lumber firm at Frederiksstad carries on very successfully the manufacture of oxalic acid. It is made by fusing sawdust with a mixture of the caustic alkalies. Sodium oxalate is separated by crystallization from the solution of the fused product and transformed into calcium oxalate by treatment with milk of lime. The pure acid is secured from the cox boilers.

calcium salt by the usual treatment with sulphuric acid. The export of oxalic acid, amounting to \$37,000 in 1910, goes chiefly to the United States. The firm in question manufactures also such oxalates as are demanded in commerce.

The manufacture of copper pigments for use on the hulls of both wooden and steel vessels is highly developed in Norway, as is to be expected in a country ssing so extensive a mercantile marine. Nine establishments make a specialty of this product, and there is an annual export valued at \$58,000.

The production of mechanical and chemical wood pulp has likewise assumed large dimensions in Norway, where conditions resemble so closely those existing in Sweden. The Norwegian spruce, with its low percentage of resin, seems exceptionally well adapted for the industry. Fears are often expressed in Norway, as in other lands, that the forest wealth is being sacrificed too rapidly to the growing demands of the pulp industry. In 1910 the export reached 640,000 metric tons, of which Great Britain purchased two-thirds. Closely connected with this branch is paper manufacture, the exports amounting in 1910 to 138,500 tons. Of this, 70 per cent., chiefly printing paper and packing paper, went to Great Britain, and the remainder was shipped to Hamburg.

The vast fisheries of Norway furnish a large portion of the country's contribution to international trade. Fish oils are an important item. An important item in the full utilization of the products of the fisheries is the extensive manufacture of fish guano, fish-bone meal, powdered whale flesh and powdered herring and other fish. A large number of firms are engaged in this branch. Not only are the needs of Norwegian agriculture fully met, but there is a large surplus for exportation. The value of exports in 1910 was about \$650,000.

There are three factories making superphosphate, and the import from abroad amounts to but \$59,000 per annum. Norway is one of the few countries possessing ample deposits of apatite. The annual output covers the domestic needs, and there is a small export. Norwegian agriculturists, however, use large quantities of Thomas slag, and the demand is met almost entirely by foreign importation. The annual value is \$224,000.

Ammonium sulphate is supplied by four of the leading gas works in the country.

The Fruhling Type of Dredge for Mississippi River.

The large suction dredge "New Orleans," designed for use in the Southwest Pass of the Mississippi River, will shortly be launched at the yards of the Fore River Ship & Engine Co., Quincy, Mass. This dredge is of the Fruhling suction head type, which has been successfully used in Europe and Canada, where dredging conditions are similar to those which prevail at the mouth of the Mississippi. The vessel is 315 feet over all, 80 feet beam and 26 feet depth of hold. The capacity of the hoppers is 3000 cubic yards; coal bunker capacity, 300 tons, and its speed will be 10 knots per hour. The Fruhling suction head may be described as a huge enclosed rake, 18 feet wide by 5 feet in the fore and aft direction, with sharpcutting teeth, through which water under high pressure is forced to aid in disintegrating the material to be dredged and to make it of suitable consistency to be drawn through the suction pipes, by which means it is deposited in the hoppers. The propelling machinery consists of four sets of triple expansion marine engines, with steam supplied by four Babcock & Wil-

Clay Deposits of the South.

By L. T. EMORY, C. E.

clay products of the country ranks next to that of coal and iron in the list of mineral resources, Innumerable articles. ranging from expensive chinaware at one end of the list to the cheapest building brick and drain tile at the other, are made by burning the different grades of clay.

The South is favored in both the extent and variety of its clay deposits, and more attention should be given to their development. Large quantities of roofing tile, building brick, fireproofing, paving brick and pottery products are now shipped from north of the Ohio River. There is no reason why the Southern clay deposits should not be developed to produce this material at home. Nearly all of the Southern States lie partly in the coastal or Gulf plains, which are made up of sedimentary deposits of clay and sand.

North Carolina, South Carolina and Georgia have extensive deposits of kaolin and china clay. The ball clays of Florida have largely taken the place of imported clays used in the Eastern potteries. Virginia, West Virginia, Tennessee, Alabama and Georgia contain large areas of shale suitable for the manufacture of tile and paving brick.

Clay is an aluminum silicate, with variable quantities of free quartz, iron and other mineral substances as impurities. The pure form is the mineral kaolinite. which forms the kaolins and china clays where very small amounts of impurities are present. It is formed by a decomposition of rocks containing feldspar and other silicates. Most deposits are of sedimentary or transported kaolins, the material having been carried by water from the original rock sites to other localities and deposited in beds where the water lost its velocity and carrying capacity. Some of the china clays or kaolin are found in situ, where the original beds of feldspar have been decomposed by the chemical action of percolating waters or acid fumes. The most valuable deposits of the South are those of nearly pure kaolinite, which are being worked for pottery kaolins and clays used in the manufacture of paper. A kaolin, to be valuable for pottery purposes, should contain less than 1 per cent of iron oxide or titanium, and should also possess certain physical properties, as plasticity and low shrinkage. manufacture of paper it should be a dead white in color, a slightly blue tint being preferable to a cream. It should also have certain working qualities, such as freezing rapidly when placed in water and being easily absorbed by the pulp in the mixture. Several of the deposits of South Carolina and Georgia are so free from sand that it is only necessary to mine and dry the kaolin before shipment. The material from other deposits has to be ground and washed and the sand removed from it in settling troughs, after which it is concentrated in vats and the remainder of the water squeezed out in filter presses. The cakes are removed from the filter presses and dried in tunnels or on steam pipes, after which the product is ground and bagged for shipment.

The potter's mix, from which porcelain and other glazed ware are made, is composed of several kinds of kaolin, ground flint and feldspar. In the potteries at Trenton a mixture of English china clay or kaolin, Florida ball clay and probably everal kaolins from the South are used Each one of these constituents is added to give the final mix some definite quality to enable it to be molded into shape, stand handling and the severe heat of the kilns.

The material from a deposit will often be valuable for a certain use and practi- ble, gas and oil.

But few people realize that the value of | cally worthless for others; for this reason it is essential for the parties developing the property to determine for just what product the material from their deposit is best suited and develop it along these lines Before the erection of a plant the material should be thoroughly tested. The opinion of a practical clay worker is not sufficient to protect the investors. Complete chemical and physical tests should be made by a capable ceramic engineer and some of the material manufactured into the finished product at another plant, or in a laboratory where it can be handled by methods very nearly approaching actual working conditions.

During the last few years over 200,000 tons of English clay and kaolin have been imported yearly into this country. One paper concern in the vicinity of Portland, Maine, uses over 13,000 tons annually. From these figures it will be seen that there is a good field for home production. At the present time an import duty of \$2 per ton is imposed on foreign clay. To get this business it is necessary to develop a high-grade deposit and to use the same care as is used in the preparation of clays abroad to insure a high grade and uniform

A thorough investigation of the impure clays from which bricks, tile and terracotta are to be manufactured is as important as in the case of the more vauable kaolins. The value per ton of this material may be comparatively small, but, owing to the large amount to be handled, it is neecssary to effect every economy in the method of operating the plants, which often represent a large investment. Very little can be told about the color to which a clay will burn until it is actually tested, and it varies greatly at different temperatures and for different kiln conditions. The color largely depends on the amount of iron oxide present, and has little, if anything, to do with the strength, but for architectural reasons a few shades difference in color may determine the commercial value of a product. If the material is satisfactory for the ware for which it is to be used, the most important factors are then the quantity of material present and its distance from transportation. The freight rates to points of consumption have to be taken into consideration to determine the profits that can be expected.

Owing to the increased price of lumber in the last few years and the strict requirements of building laws as to fireproofing, etc., the use of clay products has become almost universal in modern structures. There is such a wide range in the raw material used that almost any clay deposit which is on the railroad within shipping distance of the markets is of

Arkansas.

The State Bureau of Mines, Manufactures and Agriculture at Little Rock, Clay Sloan, commissioner, is circulating pamphlet compiled by Lewis E. Hutchins, deputy commissioner, presenting in succinct form a summary of the agricultural, mineral, timber and manufacturing re sources of Arkansas, and the educational advantages of the State. In discussing cotton, corn, potatoes, rice, peanuts, oats, wheat, alfalfa, clovers, cowpeas and other crops, live-stock and poultry, horticulture, etc., many cases are cited of the successful experience of farmers and planters. Among the mineral resources mentioned are coal, sinc, lead, phosphate rock, bauxite, fuller's earth, cement, asphalt, clay, kaolin, soapstone, slate, mar-

Highway Improvement Congress at Richmond.

[Special Correspondence Manufacturers Record.]

Richmond, Va., November 21,

Much regret has been expressed at the inability of President Taft to carry out his intention to attend the first American road congress under the auspices of the American Association for Highway Improvement, which is in session here this President Taft was to have made one of the opening addresses at yesterday's session, but at the last moment a heavy cold compelled him to cancel his engage-He, however, sent a message strongly commendatory of the movement for improved highways in the country. The sessions of the congress are held in the auditorium of the Jefferson Hotel, which is hung with flags and banners and pennants of the various organizations constituting the association, and on the walls of the nearby corridors are many large photographs showing the various stages of first-class road building. The program of this congress, which has attracted the attention and interest of highway authorities of the nation and States, automobile clubs, road builders and others, included addresses of welcome by Governor Mann of Virginia and Mayor Richardson of Richmond, with response by Logan Waller Page, president of the association; addresses by United States Senator Martin of Virginia, President W. W. Finley of the Southern Railway Co., Congressman J. Hampton Moore of Pennsylvania, Secretary James Wilson of the National Department of Agriculture, Gen. T. Coleman DuPont of Delaware, Dr. Walter H. Page of New York city and United States Senator Swanson of Virginia on the opening day.

The second day's program, devoted to highway engineers and contractors, included addresses by Harold Parker, formerly chairman of the Massachusetts Highway Commission; Provincial Engineer W. C. McLean of Ontario, Canada; State Highway Commissioner P. St. Julien Wilson of Virginia, State Highway Engineer W. W. Crosby of Maryland, Dean Edward Orton of the engineering department of the Ohio State University, Prof. Arthur H. Blanchard of Columbia University, New York; Onward Bates, formerly president of the American Society of Civil Engineers; President D. L. Hough of the United Engineering & Contracting Co., State Highway Engineer A. N. Johnson of Illinois, Chief Engineer Nelson P. Lewis of the New York City Board of Estimates and Apportionment, Territorial Engineer J. B. Girand of Arizona.

For road users day the program includes addresses by President Preston Belvin of the Virginia Automobile Association, Superintendent Richard Sylvester of the police department of the District of Columbia, Col. William D. Sohier of the Massachusetts Highway Commission, President Charles Clifton of the Automobile Board of Trade of Buffalo, Secretary of State Edward Lazansky of New York, Secretary of State Mathew S. Rogers of Connecticut, Hugh Chalmers of Detroit, David Beecroft of Chicago, Sidney S. Gorham of Chicago and H. D. Hadley of Plattsburgh, N. Y.

The concluding sessions of the Congress will be devoted to the husiness of the association and to addresses by State Gelogist Joseph Hyde Pratt of North Carolina, State Geologist S. W. McCallie of Georgia, Secretary Jesse Taylor of the Ohio Good Roads Federation, Charles T. Lassiter of Virginia, W. D. Brown, editor of

the R. F. D. News; Leslie T. McCleary of New York, W. F. Malone of New York and others.

The good-roads train operated by the office of public roads of the United States Department of Agriculture, in connection with the Atlantic Coast Line Railway, arrived in this city Sunday, and will remain here until the convention is over. Lectures by road experts are delivered each day. The train is in charge of Leslie Boykin, assistant to Director Page of the office of public roads, who is assisted by E. D. Baker, representing the American Association for Highway Improvement. Mr. Baker hopes to interest farmers by showing them the practical application of plans for highway improvement. The train when it leaves here will proceed on a lecturing tour in Virginia, the Carolinas, Georgia and Florida.

A large delegation came here from Ohio. In the party are Fred H. Coley, secretary of the Cleveland Automobile Club; D. Sherwin Humphreys of Cleveland; W. Alsdorf, superintendent of the Ohio Good Roads Association: Thomas Henderson of Cleveland, vice-president of the Wintin Motor Car Co.; Wm. Stroop, president of the Dayton Automobile Club, and James R. Marker of Columbus, member of Ohio State Highway Commission. One of the big road and street builders attending the convention is E. M. Bigelow, State Highway Commissioner of Pennsylvania, who has done such good and creditable for Pittsburgh. S. D. Foster, State Highway Engineer of Pennsylvania, is also in attendance. He is the man who was employed by the United States Government do the paving of streets in Panama. When the Government undertook the construction of the canal the thoroughfares were veritable quagmires. Mr. Foster

transformed these mudholes into fine streets and boulevards, and as a result, it is said, Panama is today the best-paved city of its size on the continent.

Last evening two very instructive lectures were given, one under the direction of the Department of Agriculture and the other by the Austin-Western Company, Ltd., of Chicago. Both of these lectures, illustrated by stereopticon and moving pictures, were impressive, and showed the roads before being rebuilt and the great transformation after. The Austin-Western Company showed the improved methods of road building, which told the story in a very comprehensive way, indeed; the impressions were more lasting and beneficial as to what can be accomplished than by any other method. I. S. FIELD.

Oil Burning in Furnaces.

For three years E. W. Kerr, professor of mechanical engineering in the Louisiana State University at Baton Rouge, has been investigating gas as a fuel, and in connection with that has made a number of boiler tests with oil as a fuel. The results of the investigation have been embodied in Bulletin No. 131 of the university, in which Professor Kerr says:

"Although the proper utilization of bagasse as a fuel is of great importance, efficient oil burning is no less important; in fact, there is little doubt but that the fuel losses in sugar factories are as often due to inefficient oil burning as to inefficient bagasse burning. The problem of oil burning in a sugar factory is in general much the same as for any other plant, although there is one phase which is peculiar to the sugar factory, and that is, the matter of burning the cil in the same furnace with bagasse. Whether it is better to burn the oil by itself in a furnace especially suited to oil burning or in the same furnace together with bagasse is a question not definitely known, some of the most intelligent engineers disagreeing as to this point. The writer has been to some pains to get data as to the practice in this regard in the sugar-houses of Louisiajia, especially from those having the best fuel records, and has found that some of these burned oil with and some separate from the bagasse. In some of the tests that have been made especial, attention has therefore been given to the securing of data that might be of assistance in deciding as to the relative merits of the two methods from the standpoint of economy."

Improving Tampa Bay Hotel.

The Tampa Bay Hotel, which was built by H. B. Plant at about \$2,000,000, is one of the most splendidly located resort America. After the death of Mr. Plant it passed into the ownership of the city of Tampa. It has now been tensed to H. M. Stanford for 10 years, and will be managed by him. Mr. Stanford writes the MANUFACTUBERS RECORD that he is thoroughly renovating the building from top to bottom, installing modern plumbing, engines and boilers, and making extensive interior decorations. This is one of the really great resort hotels of the country. With these modern improve ments completed and the hotel properly advertised by the railroads entering Tampa, as they should do, it ought to be come one of the most popular places in the country, for it is an ideal spot for those who are fortunate enough to escape the rigors of Northern winters and seek rest and recreation in the balmy climate of Florida.

Gulf Refining Co. Plans.

The Gulf Refining Co, of Pittsburgh has completed its plans to build a six-inch branch oil pipe line from its trunk line at Saltillo to Fort Worth, where it has purchased a site and will immediately begin the erection of a refinery to take care of its rapidly-growing trade in North Texas. The completion of these facilities will give buyers in Fort Worth and other cities another source of supply for their fuel oil.



BIRMINGHAM LEDGER BUILDING, BIRMINGHAM, ALA.

Construction completed; 50x100 feet; 26,500 square feet floor space; Renaissance style architecture; fireproof, sfeel, brick and terra-cotta construction; five stories, two underground; south end of basement for pressroom; provision in lower basement for light, power and heat equipment; first floor for offices, advertising, circulation, filing departments, etc.; second floor for editorial and news rooms; third floor for composition and stereotyping departments; cost \$100,000; architect, William Leslie Welton, Birmingham; contractor, Realty Construction Co., Birmingham.

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The Auditor's Relation to the Industrial South.

By GUY H. CRUSSELLE, President Crusselle Audit Co., Atlanta, Ga.

ment of the South during the last quarter century is due largely to the imperative cessity which forced our fathers to devote their entire time, energy and skill to diligent study of individual lines of business, directing operations and shaping future careers while engaged as coworkers with employes in each department.

The marciless pruning administered by a relentless pestilence incident to the political disturbances and desolation of the "sixties," even to the complete annihilation or paralysis of its enterprises, comnelled the South to utilize and rely largely upon the wealth of natural resources nearest at hand to regain its wasted financial strength. A remarkable vintage has resulted.

The dawn of the present century witessed this section as having abandoned the primitive policy for a more desirable one of conservation. It is immaterial whether its existence as a basis for commercial growth is due to lack of capital to prosecute the old, or to mature consideration or to proper appreciation of the advantages, importance or necessity of the new. They adopted the more progressive idea. Its presence is undenied, and is an inspiration and strength to the splendid young manhood of the new South, as we stand upon tip-toe to review the past, or with eager expectancy face an era of prosperity, development and opportunities unprecedented in its history.

Contemplation of the past reveals the fact that the "backbone" of the South today is its small commercial, industrial and manufacturing enterprises, and the multiplicity of these plants stand as abiding ments to the indomitable courage and business sagacity of their founders.

It is through the development of these small enterprises that our largest commercial success will be achieved.

Our progress has been remarkable, and a certain amount of development has been accomplished even in the face of disasters, disadvantages, struggles and handicaps exceedingly discouraging.

The South will never attain its full development, however, until the idle capital throughout this section, and that which has been invested in hazardous and speculative schemes inflating the values of property and commodities, be invested in more substantial and conservative class of securities represented by its industrial and manufacturing plants. But so long as every dollar now invested in commercial enterprises has to be made to do the work of five, and the scant accommodations extended to them by financial institutions are not materially increased, we must be content with only a moderate degree of success and development. The development of the individual plant must be the foundation for the future industrial, manufacturing and commercial development of the South. So many enterprises have been forced to discontinue operations because of insufficient capital with which to prosecute their business that investors fight shy of and condemn to the same untimely end all stock propositions, believing that real estate, municipal and government bonds offer the best security and dividends.

Therefore, the future work of the auditor in relation to the future development of the South forces him to prepare for and accept a very important commission as one of the greatest factors in reversing this condition. The Southern business resulting in increased profits, in drawing the South with which to establish institu-

The magnificent commercial develop- | man, in working for the prosperity of his individual plant, cannot afford to eliminate this one important factor; their interests are identical, each needs the other, and their forces must be joined to accomplish the coveted success and development. Too much stress cannot be placed upon the importance of this step, nor upon the imperative duty of the auditor in making his analytical investigations so penetrating and beneficial as to present only true conditions, but in this presentation so rivet the attention of the prospective investor to the large possibilities of such business as to secure, with safety, sufficient funds for the enlargement of capital, plans and profits.

> The full realization of the luxuriance and abundance of the wealth of the South, imprisoned in mountains, forests and streams, teeming fields of cotton and grain and myriad of browsing herds, is based upon and must abide the future development of the industrial and manufacturing enterprises to properly care for this fabulous wealth, either by consumption in local manufacturing plants or by distribution to foreign markets.

> The position which the auditor occupies in this intimate relation to the development of the industrial South 's not one of professional choice, but business selection

> The importance of his work and the consequent influence exerted is being more and more conceded, and his services are more eagerly sought by progressive business men who properly appreciate the commercial value and advantages to be gained.

This demand is based upon the fact that it is as necessary and vital to properly protect and safeguard every business investment as it is to insure life and property. Periodical audits of accounting records and the installation of proper and modern systems and a rigid investigation of methods and customs in use furnish the best known means.

Indifference to or disregard for this business precaution by those who are unmindful of these advantages has been a more prolific source from which "commercial derelicts" arise than the misappropriation of funds by dishonest employes.

The need of periodical audits, there fore, arises simultaneously with the existence of the investment, and is not dependent upon defalcations, bankruptcies, nor any causes which do violence to safe and sound business principles. The auditor's service as rendered rises higher than the primitive method of ascertaining only those causes which disturb the mathematical accuracy of records. It exacts the best thought-diligent, painstaking, searching-and mature judgment of a trained mind to master the conditions which surround, relate to or surmount the enterprise. A winnowing and sifting process is instituted by a careful analysis of the elements of the business, and study of each as a concrete proposition. A full scope or survey of the business as a whole presented in reliable financial statements enables those interested to come in vital touch with the details of the business, detect the consuming disease, if any, and apply necessary reforms and remedies. Particular care is also given to devising and installing better systems of accounting records or by modernizing those in use be able to dissect and critically analyze the cost of production, so that reductions may be accomplished,

in all overlapping or wasted work, and in getting the whole detail of business-what it does, what it is doing and what it can do-presented and worked out in a clear, scientific manner, so that a finger may be placed on leaks which reduce profits. The prestige thus established silently creates a very valuable asset, and such institutions which recognize and appreciate this protection and safeguard manifestly demand, deserve and secure greater commercial respect and confidence. The expediency of an audit and its consequent value is not dependent upon either the size of the business nor its volume but upon the importance and value of its

The maximum value is reached when the information secured is so presented as to show in succinct statements the relation which has been sustained by the elements of the business, not only to each other, but to the business as a whole. clearly sets forth its weakness as well as strength, extravagancies in operating or manufacturing expense or its investments, its inherent powers for development, as well as its ability to overcome the general conditions surrounding it, so that proper trade relations may be established or strengthened. Such reports submitted to commercial agencies and financial institutions establish a reliable basis for just and legitimate commercial rating and a liberal line of credit.

Current investments are retarded or withheld by cautious and prudent capitalists pending investigations by a reliable auditor, and from reports submitted will accept or condemn the investment. Inase of capital or bond issues are handled much more satisfactorily in conjunction with an auditor's report. The various bonding companies are beginning the practice of requiring an auditor's report to accompany applications for renewals of bonds for officers and employes occupying positions of trust and honor. Fire losses can better be adjusted in every instance where proper and adequite systems of accounting records are in use and auditor's reports on file submitting values as of certain dates of inventories and physical assets of whatsoever character. The more recent the audit the more equitable and easier the adjustment.

Whenever a progressive spirit is manifested in municipal or county affairs and a business administration has control, it is an inevitable fact that at the termination of such administration their transactions are made public through the same agency employed by them in their commercial enterprises—auditor's reports. An audit is to a great extent a prevention for the accumulation of doubtful and bad accounts, wherever a continuous audit is the ustom or the practice prevails of reconciling the records of debtor and creditor.

The simple principles which underlie the whole scheme of conservation for the purpose of development must be injected into and control all activities along this line, not only for natural resources alone, but in every department of business, to insure commercial, industrial and financial life, prosperity and independence.

The South today, with all its boasted wealth, is a financial slave. The natural tendency of our immense wealth follows the well-beaten paths and deep-cut chanpels of trade established in former years when we were dependent upon other markets for consumption, purchase and manufacture of our raw products and materials. The regular order or course of our money goes from hamlet to city, and from city to money centers. The money centers are not located in nor confined to the South, either. Surely we have enough money in

tions of sufficient financial strength that can and will provide the accommodations etxended by money centers during certain periods, and that is withheld during depresions. These depressions originate almost always in and are largely controlled by the money centers. If any of these centers suffer financial disturbances or disasters, the entire country is affected. The control of our own strength secured in the conservation of our finances lies within our hands and gives freedom from the powers and dominion of the money centers. By conservation of finances I mean holding same within its own legitimate geographical territory in which it was created by producing ourselves the very articles we desire to possess and which entice it from our territory because of manufacture elsewhere. We would thus reduce the confines of such territory in which it should circulate as to retain our financial strength for reinvestment in and for the strengthening and upbuilding of Southern enter-

Should an enterprise be started in the South calling for an extra amount of capital to establish or develop we are forced to seek the aid of Eastern money centers to float it. There is hardly an institution in the South today that could, singlehanded and alone, cope with any unusual situation. The silent array of statistical facts and figures of the South's resources and development of the gigantic opportunities present demonstrate now as never before that our former prestige is being restored, and we are rapidly coming into our own, but does it not seem incredulous and preposterous to believe that we should be forced to seek relief from Eastern ney centers to move our cotton crops, build our railroads, develop our mines, improve our cities and roads, because of our failure to conserve for our own development our bounteous harvests of wealth, and will continue to divert the strength of our splendid financial manhood to the upbuilding of sections of our country other than our own?

The wealth of the South today is \$6,000,000,000 greater than the total wealth of the entire United States in 1860, and its population of 27,500,000 is only 3,000,000 or 4,000,000 less than the total population of the United States at that

Would it not be possible to so reduce the circles in which our wealth circulates as to become (if you please) a spiral upon which we may mount on our own financial development without disturbing trade relations and establish in our own Southland such a strong financial bulwark and tower of strength as to be able to finance any proposition, handle our abundant harvests, build our railroads and develop our institutions of business and give added and increased impetus to our progress?

The scope of auditing and the wide range in which the auditor is called for service is so broad and elevated, and the service properly rendered so far-reaching in its effect, that no man has been able to set a limit to the benefits that may accrue to his clients, nor to the lasting good nor wholesome influences upon the future such expansive policies may exert.

The future work of the auditor in his relation to all classes of commercial enterprises and every department of business nust be that of a business economist of wide experience and thought far in advance of the procession which he is especially fitted, by reason of such experience and study, to lead and point the way to business success and development.

Between 1899 and 1909 the orange crop of Florida increased from 273,000 boxes to 4,853,000 boxes.

FOR MOUNTAIN GRAPES.

Large Vineyard Undertaking in Western Carolina.

[Special Cor. Manufacturers Record.] Greenville, S. C., November 16.

An important land development at and around Tryon, N. C., is planned by Greenville and Tryon men, who have purchased and taken options on 5300 acres of land there. They have organized for this development the Hoke-Hill Real Estate & Investment Co. (recently announced by the MANUFACTURERS RECORD as incorporated with \$50,000 capital stock), with the following officers: President, D. M. Hoke of Greenville: vice-president, A. L. Hill of Tryon; secretary-treasurer, W. B. Hellen of Tryon, but formerly of Boston, Mass. This company has completed the purchase of 300 acres of the Tryon land, and has options to buy 5000 acres, all to be developed for residential, industrial and agricultural purposes. The industrial development will include the construction of a water-power plant on Vaughn's Creek to generate electricity for distribution as light and power, this requiring the erection of a dam that will form a lake, on the shores of which the company intends to build modern cottages. On other portions of the land the company will erect other dwellings. Two engineers, F. G. Rogers of Greenville and Wm. Farr of Asheville, N. C., are now investigating the power property in order to report on its possibilities in horse-power. Tryon is in Polk county, which is entered by but one railroad, and because of this the company's plans include arranging for extensions of existing railways or laying additional tracks. It is the Southern Railway that enters Polk county, crossing it for a few miles in the southwestern corner on its route to Asheville, from which city Tryon is distant about 35 miles. The Tryon sec tion is located in the famous thermal belt, pronounced by eminent authorities and travelers to be ideal for health and agriculture. It is especially proposed to encourage the growing of grapes, for which this belt has already been fully tested. One grower shipped during the past season 3000 crates of grapes, for which he received \$1.30 per crate. During the recent eason of about eight weeks there were about 10,000 crates (20 pounds to the crate) shipped from this section. Apple growing will also be given full attention, the soil and climate being especially suitable for this fruit.

FOR DESIRABLE SETTLERS.

Opportunities in the Cumberland Plateau of Tennessee.

Tennessee Central Railroad, Cookeville, Tenn., Nov. 18.

Editor Manufacturers Record:

Particularly interesting to Tennessee is your article in the MANUFACTURERS REC-ORD of the 16th, "The Right Way to Get Desirable Southern Immigrants.

This State has just awakened to the enormous possibilities of utilizing the millions of idle acres through the process of colonization. The Legislature at its last session appropriated \$10,000 for the use of the Commissioner of Immigration in advertising the matchless soil and climatic conditions of Tennessee. In addition to this, organizations in the various cities, towns and counties are vieing with each other in a friendly rivalry for industrial and colonization supremacy.

Tennessee offers the homeseeker all the advantages possessed by any of the Southern States, and many that they do not. It is the one State that grows profitably and successfully all the grains, grasses fruits (with the exception of the subtropical), cotton, tobacco, live stock and



PETTEWAY BANK AND OFFICE BUILDING, TAMPA, FLA.

To be erected by Commercial Building Co., G. A. Petteway, president; 10 stories; 105x105 feet; reinforced concrete and steel; first two stories faced with Georgia marble; cost about \$250,000; contractor, Falls City Construction Co., Louisville.



NEW HILLSBORO HOTEL, TAMPA, FLA.

Erected for Hillsboro Hotel Co., R. S. Hall, president; seven stories; 211x105 feet; reinforced concrete construction; cost about \$450,000; architect, F. M. Curtis, Tampa; contractor, Jack McGurken

poultry. Farming here is diversified, indeed. Upon the same farm you may find growing corn, wheat, oats, rye, barley, clover, bluegrass, timothy, redtop, orchard grass, millet, cotton, tobacco, every variety of fruit, berry and vegetable, horses, mules, cattle, sheep, hogs, goats, chickens, turkeys, geese and ducks.

There is no main crop here; it is simply a matter of choice with the farmer what he prefers to raise; therefore, the failure of one crop does not affect the community.

On the Cumberland plateau, embracing Fentress, Cumberland, Roane, Overton and Putnam counties, the land is comparatively level, and is today without a doubt the richest undeveloped section of the South. It is the development of this land that the Tennessee Central Railroad is directing special attention to.

Practically every foot of it is underlain with minerals, but the soil, a sandy loam, will make it a vast garden spot, and in the years to come it must of necessity be the center of fruit and truck-growing and live-stock industries.

There are no drawbacks to home life on the plateau. The air and water are are absolutely unknown. The nights in summer are cool; the winters short and mild, and the natives hold it their duty to live to a ripe old age.

These lands are yet cheap, and the Tensee Central will be glad to furnish information to those who would like to undertake colonization work in Tenn The man who buys Cumberland plateau land now is the rich man of Tennessee within the next few years.

RUETLEDGE SMITH, Industrial Agent.

SOUTHERN IRON ORES.

No Monopoly in Acquiring the Ten nessee Coal, Iron & Railroad Co.

Wm. B. Phillips. Ph.G., director bureau of economic geology and technology, the University of Texas, Austin, writes to the MANUFACTURERS RECORD:

"I read the editorial in your issue of November 2 on 'The Injury to the South Through Attempts to Prove a Monopoly of Southern Iron Ores,' and was very much interested in it. The fact is that no one who is at all acquainted with the actual state of affairs can for a moment absolutely pure; chills, fevers and malaria | hold the opinion that there is any monopoly of such ores. There are very large reserves of ore in nearly all of the South-States which have touched, and which will afford a good quantity of iron ore for a great many vears.

"I am not among those who think that the acquisition of the property of the Tennessee Coal, Iron & Railroad Co. by the United States Steel Corporation was in any sense of the term, an injury to the iron and steel industry of the South. On the contrary, I think it was one of the best, if not be best, thing that has happened in this industry throughout the er tire South. I do not touch upon the legal aspects of the acquisition of this property, for that is for the courts to decide; but I believe that far worse things would have happened in the South had this pa erty not been secured at that time than have happened since it was bought.

"You are fully aware that it takes a great deal of money to go into the manu facture of iron and steel products; and I doubt very much if, at this time or subsequently thereto, this money could have been raised. I do not say that the Tennessee was hawked around, but I do know that for many years those in control of it were greatly hampered in their plans by the lack of large amounts of ready money.

"The United States Steel Corporation does not control Southern iron ores; and I, for one, do not think that they ever intended to do so."

Bald Mountain Cement Plant.

The Bald Mountain Portland Cement Co. Rome, Ga., is having plans prepared for the construction of its proposed plant near Aragon, which will have a daily capacity of 2000 barrels of Portland cement Crushing machinery has been ordered, and contracts will be awarded soon for the other equipment. The electrical drive will be used throughout. This company was organized several months ago with a capital stock of \$1,000,000, and it owns 360 acres of land in Polk county containing limestone and shale deposits. J. L. Bass of Rome is the company's president. Other facts were previously stated.

Phonographs and Graphophones.

Between 1904 and 1909 the capital invested in this country in the manufacture of phonographs and graphophones increased from \$8,741,000 to \$14,263,000, or 64 per cent.; the amount of salaries and wages paid from \$2,350,000 to \$3,786,-000, or 61 per cent., and the value of the products from \$10,237,000 to \$11,726,000, or 15 per cent. In 1909 there were manu factured 344,681 phonographs and graphophones, valued at \$5,407,000, and 27,183,-959 records and blanks, valued at \$5,-007,000.

"Practical American Encyclopedia"; in two volumes: Bernhart P. Holst, editor. Published by W. P. Conkey Company, Chicago.

This publication contains nearly 1000 illustrations, and the subjects are treated with a view to furnishing accurate information, and at the same time giving prominence to the different titles in proportion to the places they occupy in the field of knowledge. Some are treated briefly, while others are explained exhaustively, this depending upon the average requirement for facts as reference is made to the different subjects of thought and conversa tion. To obtain this balance in the arrangement and to secure the greatest possible accuracy many subdivisions of the titles treated were arranged by the writers.

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BUYING BY RAILROADS.

Effects Felt in the Birmingham Iron Market.

| Special Cor. Manufacturers Record. 1 Birmingham, Ala., November 20.

With the commencing of this week the local situation has a decidedly more encouraging aspect, owing to the increased volume of inquiry for raw materials and to the heavy tonnage of finished product that has been placed. The heavy buying on the part of the leading railroad interests has been very effective in producing an optimistic feeling generally, and in view of the fact that indications favor the placing of additional orders of the kind referred to in the near future. there is a revival of interest in all quarters of the trade. The actual sales of pig-iron effected during the past week do not aggregate a large tonnage, but the trade was well represented, and especially notable was the number of instances where prompt shipment was required. So far as price is concerned, it is conceded by the best authorities that a \$10 per ton Birmingham basis for delivery during the first half of next year will be maintained. There is some question as to just what price can be had on attractive tonnages for shipment during the remainder of the year, owing to the disposition of certain of the producing interests to realize on stock accumulation. It is probable that an unusual arrangement could be made as to the chemical content of certain grades offered, and that freight advantages that are usually reserved by the furnace interests would be conceded; however, the market quotation for No. 2 foundry is \$10 per ton Birmingham, with a differential of 50 cents per ton for No. 3 foundry, and a differential of 25 cents per ton on a No. 3 foundry price for the lower grades. The demand for the lower grades continues very strong, owing to the limited provision the largest consumers made for their requirement early in the year. This applies particularly to the manufacture of castiron water pipe, which manufacturers have taken practically all of the low-grade iron produced, and at a rate about equal to the production for some two months Specifications against contracts for all grades have increased very materially during the past fortnight, and in but few instances is complaint now being made of the inability to deliver tonnage contracted for. Of course, there will be considerable tonnage carried over into the first quarter, and even into the second quarter, that was sold for shipment prior to January first, as a certain portion of the trade no doubt bought heavier at the \$10 price than their requirements warranted. But such conditions have always existed after the market has gone through such fluctuations as of the past six

It is not believed that sufficient iron has been sold the merchant interest at the lowest level of prices to be of serious consequence in the event quotations should be advanced, although a considerable percentage of the iron now on furnace yards was sold to merchant interests shortly after the decline from a basis of \$11.50 per ton at Birmingham. Specific information as to sales for the past week involving other than small lots is lacking, but from all conditions existing the market, both for prompt and forward deliveries, is considered stronger than at the time of last report. Quotations are as follows for delivery prior to July 1, 1912, per gross ton f. o. b. cars Birmingham furnaces: No. 2 foundry, \$10 per ton; gain lots in the majority of cases. There operatives, using 10,000 bales of cotton

No. 3 foundry, \$9.50 per ton; No. 4 foundry, \$9.25 per ton; gray forge, \$9 per ton.

The manufacturers of cast-iron pipe have recently entered the market for fair tonnages of raw material, and accordingly consider the outlook for their industry sufficiently good to warrant steady operations. A liberal volume of business is represented by the small lots placed during the past week, and mention is made of an improvement in the demand for municipal ecurities which will facilitate extension to water-works systems that has been under a consideration for some time past. The largest letting recently made was 600 tons of water pipe for Los Angeles, Cal., which will be furnished by the United States Cast Iron Pipe & Foundry Co. A contract for 500 tons of water pipe has been placed with the American Cast Iron Pipe Co. for Meridian, Miss., and approximately the same tonnage for requirement in South Alabama has just been submitted for bids. For such lots as just mentioned the schedule of prices as quoted is being fully maintained, and in the absence of evidence to the contrary, those prices referred to are considered as subject to only slight shading for municipal contracts. The plants at Anniston, Besse mer and at Birmingham continue in full operation, with the Dimmick plant and the plant at Sheffield, Ala., only remaining idle. Class "B," or water pipe, is quoted as follows per net ton at the plants referred to, with \$1 per ton extra for class "A," or gas pipe, viz.: Four-inch to six-inch, \$23; 8-inch to 12-inch, \$22; over 12-inch, average \$21, with specials quotable at from \$45 to \$50 per net ton.

The market for steam coal continues good, and the demand for all grades of domestic coal is just at this time larger than normal, owing to the early season. Mine operations have recently been extended considerably in certain fields, and plans are now under consideration for development of large holdings in the western section of the State. In this connection particular interest is given the Bryan Coal Corporation and the American Coal Corporation, which companies propose new openings in the construction of washers and other appurtenances for the preparation of both domestic and steam coal. The adoption of semi-monthly paydays, instead of monthly paydays, as heretofore adhered to, has not affected the output, and is generally looked upon with favor by labor organizations and the mercantile interests. With the blowing in of the Alabama City furnace of the Southern Iron & Steel Co. early in the month an additional battery of coke cvens has been put in blast on furnace coke. The capacity now being operated on this grade is, of course, small, comparatively, owing to the continued small percentage of blast furnace operations. The capacity for the production of foundry coke, however, is normal, and the prices of local commercial coke interests have been strengthened by reason of the practical withdrawal from this marekt of certain large Virginia and West Virginia producers, owing to the heavy sales made aginst the output in that particular territory. Run-of-mine coal is quoted at \$1.45 to \$1.60 per net ton at Birmingham mines; the best grades of domestic coal at \$2.75 to \$3 per net ton at Birmingham mines; furnace coke at \$2.25 to \$2.75 Birmingham ovens, and Alabama 72-hour foundry coke at \$3.25 to \$3.50 per net ton at Birmingham ovens.

Dealers in old material are receiving more inquiry than for some time past, and are able to obtain better prices for the material sold. The demand as yet consists principally of carload lots, with the consuming interests disposed to consider baris a larger consumption, however, and local accumulations are not considered such as to warrant the forcing of a market at the expensive quotations. The market is no doubt in a very unsettled condition, but dealers are very strong in their views, and while quoting nominally only, the following schedule is considered a fair representative of values per gross ton f. o. b. cars here:

Old iron axles, standard, \$15.50 to \$16. Old iron axles, small, \$12 to \$13.50. Old steel axles, light, \$13 to \$13.50.

Old steel axles, standard, \$14 to \$14.50. Old iron rails, \$13 to \$14.

No. 1 railroad wrought, \$11.50 to \$12. No. 2 railroad wrought, \$8 to \$8.50.

No. 1 country, \$7 to \$7.50.

No. 2 country, \$6.50 to \$7. No. 1 machinery, \$8.50 to \$9.

Standard car wheels, \$11 to \$11,50,

Tram car wheels, \$8 to \$8.50.

Light cast and stove plates, \$7 to \$7.50, In view of the proposed improvements and extensions at local mine operations, a better demand for light rails is anticipated, but an advance in prices is not yet realized. The heavy bookings of standard rails by the large mills is, of course, to be taken into consideration in quoting the market for the smaller sizes. This material is quoted as follows per net ton f. o. b. cars Birmingham: 12-pound rails, \$28 per ton; 16, 20 and 30-pound rails, \$25

GROWTH AT GREENWOOD.

Industrial Development Keeps Pace With Population Increase.

[Special Cor. Manufacturers Record.] Greenwood, S. C., November 13.

In 1890 the population of Greenwood was about 1300, which increased to over 4800 in 1900, and is now over 6600. This increase of population has been accompanied by modern municipal improvements, industrial plants, mercantile establishments, financial organizations, up-todate buildings and other necessities of a progressive community.

More than six miles of sidewalks have been constructed of cement while 20,000 square yards of vitrified brick paying have been laid, the latter being mainly in the business district. The sanitary system includes 25 miles of sewers. Water and electricity for light and power are distributed by the city, artesian water is furnished at 20 cents per 1000 gallons and at a less price for larger quantities, while electricity for lighting costs 10 cents per month for 100 kilowatts, and for more than 100 kilowatts the charge is 8 cents. For power the charge for electricity ranges from 8 cents to 2 cents per kilowatt. These water and light plants are earning dividends, and a Greenwood authority says they will soon be paying the town taxes. The electricity used here is transmitted from the Savannah River Power Co.'s development on the Savannah River, about 35 miles from Greenwood. This company is one of those that merged with the Georgia Railway & Power Co. of Atlanta, recently organized with a capitalization of \$57,000,000. Another source of electricity will soon be available at Greenwood, as the transmission lines of the Southern Power Co. of Charlotte are rapidly approaching here.

Among the prominent Greenwood factories are the cotton mills of the Greenwood, Grendel and Panola companies. The Greenwood mills has 31,100 spindles, with 756 looms, employing 400 operatives and consuming 4000 bales of cotton annually on the production of wide print cloth; this company is capitalized at \$284,000. The Grendel Mill's equipment is 43,000 spindles, with 1034 looms, employing 750

each year and manufacturing wide print cloth, sheetings and shirtings; this company is capitalized at \$500,000. The Panola Mills operate 10,000 spindles and 250 looms, with 250 employes, consuming annually 2000 bales of cotton on fine sheeting production; this company is capitalized at \$300,000.

The Greenwood Oil Mill is also an important plant. Its ginnery is claimed to be the largest east of the Mississippi River, the capacity being 30 bales of cotton daily, with 16 gins used. The oil capacity daily is 40 tons. The Southern Cotton Oil Co. of New York owns the plant. A five-acre site is occupied by the \$50,000 lumber yards and manufacturing plant of the W. J. Snead Lumber Co., which manufactures doors, blinds, sash, molding and eneral building materials. The Mays Brick Co. has a modern equipment and manufactures high-grade bricks. The Greenwood Handkerchief & Manufacturing Co. is specializing on the manufacture of convict clothing, and has a daily capacity of over 30 dozen garments, this product being marketed mainly in South Carolina, but is also sold in North Carolina and Georgia. Local machine work is attended to at the shops of A. P. Aldrich. T. S. Chipley and J. I. Chipley. The latter is said to operate a modern garage that is the largest in the State. Other Green-wood enterprises include the following: Large mixing plant of Interstate Fertilizer Co. of Charleston; factory of Greenwood Ice Co.; plant of Pepsi-Cola Bottling Co.: Palace Steam Laundry: works of Owen Marble Co.; marble plant of J. R. Leavell; Greenwood Iron Foundry, etc.

A new plant now being arranged for is a machine shop which F. J. Milam of Clinton, S. C., intends to establish at Greenwood. He proposes an investment of about \$10,000, and it is understood that the necessary building will be erected by the owners of the Greenwood Iron Foundry.

New buildings recently decided on include two municipal structures for school purposes. Plans and specifications have been completed for one of these, and bids for construction will be opened on November 20. This building will be 65x110 feet, two stories high, ordinary brick construction, steam-heating plant, electric-lighting fixtures, sanitary plumbing, etc. Its cost will be within \$20,000, and Cothran & Cothran of Greenwood are the architects. They will also plan the other school building mentioned. This structure will be for negroes, and \$4000 has been appropriated for its erection. No details have been determined. Cothran & Cothran are also engineers for a \$50,000 water and electriclight plant at Honea Path, S. C., and for water, light and sewer construction at Rock Hill, S. C.

Greenwood has four banking organizations, with a combined capital of \$316,900 and surplus and undivided profits amounting to over \$187,000. Its railroad facilities are ample, the Southern, Seaboard Air Line and Charleston & Eastern Carolina railways having 20 trains daily. These will be augmented when the Piedmont & Northern Railway, now under construction, is completed. This railway will extend from Durham to Greenwood by way Charlotte, Spartanburg, Anderson and other cities. Greenwood county has plenty of farm land awaiting homeseekers. Its climate and soil are especially adapted to fruit growing. Corn, cotton, wheat, oats, vegetables, etc., are already largely grown. The county yields about 30,000 bales of cotton, production reaching two bales to the acre. Over 122 bushels of corn to the acre have been raised in Greenwood county.

GOOD ROADS

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Daytona, Fla.—St. Lucie county voted \$200,000 bond issue for road improvements.

Magnolia, Miss.—City voted bond issue of \$12,000 for sidewalk construction.

Palestine, Tex.—Anderson county voted \$150,000 bond issue for road improve-

Pawhuska, Okla.—Caney township of Osage county voted \$40,000 bond issue for road improvements.

Pilot Point, Tex.—City voted \$12,000 bond issue for street-improvements.

Bonds to Be Voted.

Gainesboro, Tenn.—Jackson county will vote December 9 on bond issue for road construction.

Floresville, Tex.—Wilson county will vote on \$30,000 bond issue for road improvements.

Fort Mill, S. C.—City will vote December 7 on \$4000 bond issue for macadamizing and asphalting Main street.

Franklinton, N. C.—City will vote on \$10,000 bond issue for road improvements.

Mexia, Tex.—Precinct No. 4, Limestone county, will vote December 16 on bond issue for road improvements.

Pecos, Tex.—Precincts Nos. 1 and 4 of Reeves county will vote on \$100,000 bond issue for road construction.

Sherman, Tex.—Grayson county will vote December 4 on \$400,000 bond issue for road improvements.

Contracts Awarded.

Abilene, Tex.—City awarded contract for paving North 2d street with asphalt macadam.

Anniston, Ala.—Calhoun county awarded contract to construct road from Cane Creek to Jacksonville.

Austin, Tex.—City awarded contract to pave driveways in Capitol grounds with bitulithic

Baltimore, Md.—State Roads Commission awarded contract at \$45,442 to pave section of Baltimore-Annapolis boulevard.

Bonham, Tex., City awarded contract to pave the Square and North Main street.

Collins, Miss.—Covington county awarded contract to build and maintain roads in Beats 1 and 2.

Dallas, Tex.—City awarded contract at \$10,048 to pave Houston street with wooden blocks, and at \$2793.18 to pave Carroll avenue with bitulithic.

Farmersville, Tex.—City awarded contract to construct gutters and crosswalks in public square.

Lincolnton, N. C.—City awarded contract to construct 2000 linear feet of sidewalks and 2000 linear feet of curb and gutter.

Maysville, Ky.—City awarded contract to pave sidewalks on north side of 3d street.

Memphis, Tenn.—Speedway Land Co. awarded contracts for street paving at \$26,800.

New Decatur, Ala.—City awarded contract at \$5200 to construct sidewalks.

Paris, Tex.—City awarded contract for paving North 18th street.

Pensacola, Fla.—City awarded contract for street paving.

Pine Bluff, Ark.—City awarded contract at \$57,962 to pave 16 squares with crossoted wooden blocks.

Contracts to Be Awarded.

Abilene, Tex.—City will pave North 2d street.

Anniston, Ala.—Calhoun county will construct road from Anniston to Alexandria.

Austin, Tex.—City will grade and gravel South Congress avenue.

Beaumant, Tex.—City received bids until November 21 for paving Calder avenue and Washington street with creosoted wooden blocks on concrete foundation.

Chevy Chase, Md.—Chevy Chase to Great Falls Land Corporation will construct boulevard.

Crystal Springs, Miss.—City will pave five miles of sidewalks with concrete; cost about \$25,000.

Dadeville, Ala.—Tallapoosa county will construct 11 miles of road.

Hamilton, Ala.—Marion county will grade, drain and surface with gravel about 2½ miles of State-aid road.

Houston Heights, Tex.—City will expend \$180,000 for street improvements.

Jackson, Miss.—Rankin County Highway Commission, District No. 2, receive bids until December 4 to construct and improve 65 miles of roads.

Jacksonville, Fla.—Duval county will grade New York avenue and Kings road. Jacksonville, Fla.—Duval county will open bids December 29 for paving John Anderson highway from Loretto to county

Jacksonville, Fla.—Duval county will pave portion of Atlantic boulevard with asphalt macadam and vitrified brick.

Jasper, Ala.—City will pave all streets bordering on Court Square with asphalt. Lexington, Ky.—City will pave Limestone street and construct sidewalks on four other streets.

Madisonville, Tenn. — Monroe county will construct 157 miles of roads.

Morristown, Tenn.—City will pave sections of Main, Henry and Cumberland streets.

Portsmouth, Va.—Norfolk county will construct road from South Norfolk to Kempsville.

Redfield, Ark.—Good roads district is being organized to build turnpike.

Richmond, Va.—Henrico county receives bids until November 27 to construct about one mile of macadam road.

Richmond, Va.—City appropriated \$1800 for grading and paving alley.

Rome, Ga.—City will pave East 1st street and Third avenue.

San Antonio, Tex.—City will pave Travis and College streets with asphalt. Savannah, Ga.—Chatham county will

Savannah, Ga.—Cha'tham county will construct sand-clay paving on Augusta road.

INTEREST IN HIGHWAYS.

Chamber of Commerce Co-operating With the County.

Chamber of Commerce, Spartanburg, S. C., November 18. Editor Manufacturers Record:

In a quiet but most effective manner much work has been done in recent months toward making all roads lead to Spartan-The most of this work has been burg. done through county forces augmented by private subscriptions of rights of way, money, etc. Headed by Mr. Arch B. Calvert, chairman of the Chamber of Comnerce committee on roads, it is customary for a party of Spartanburg citizens to move into a community to hold a "roads meeting." Enthusiastic co-operation has been secured at all of these meetings. At one held near Tryon, N. C., about a year

ago steps were taken which have resulted in the building of a splendid sand and clay road, 30 feet wide, from Spartanburg to Tryon. The completion of this piece of work will be celebrated at some convenient point on the road at an early date.

Recently another meeting was held at Saluda. N. C., in an effort to carry the Tryon road through by way of Melrose, following the line of the Southern Railway to Hendersonville. Resulting from this, active steps are being taken for the building of what promises to be one of the most beautiful and useful bits of road in the South. It is practically assured that a highway will be complete from Spartunburg to Hendersonville and Asheville via Tryon, Saluda, etc., by next summer.

Another meeting, similar to those mentioned, was held a few weeks ago at the crossing of Broad River, between Gaffaey and Yorkville, in the interest of a highway from York county to Spartanburg, tapping the National Highway at Gaffaey. This meeting was also splendidly attended, and work is being done on the road that will put it in proper shape in the next few months. Latter, a meeting in the interest of a highway from Chester county to Spartanburg via Union will be held, and it is a foregone conclusion that active co-operation will be met with there also.

It appears to be about decided that the next convention of the Southern Appalachian Good Roads Association will be held in Spartanburg in March of 1912. It is hoped to make the program so attractive as to draw delegates from Virginia, North and South Carolina, Georgia and Tennessee, as many to be induced to ome by automobile as possible. South Carolina Good Roads Association met in Spartanburg last summer. One session of the convention held in the county, at which a picnic dinner was spread, was attended by not less than 2500 people. At this same point a meeting held to discuss a bond issue for road building two or three years ago was attended by an audience of about seven, including the peakers. Never before has there been in this section as much interest manifested in the cause of better roads or a more intelligent conception of its importance.

JOHN WOOD, Secretary.

Information on Drykilns.

Henry Vogt Machine Co., Louisville, Ky., sends the Manufacturers Record a letter from W. D. Zimdin, Vladivostok, East Siberia, Asia, who writes as follows:

"Operating at present a box and barrel mill. I intend in near future to erect an up-to-date drykiln for drying both soft and hard wood (aspen, linden and oak), barrel staves and box stock, and would beg you to send me an estimate and sketch for a kiln of following capacity: About 2000 cubic feet a day in soft or 500 cubic feet in hard wood, up to a maximum thickness of one-half inch both hard and soft wood. I would also be very thankful if you would communicate to me some information how pieces of hard wood of larger diameter as for hubs, gun stocks, etc., are now dried in the United States. Please quote prices 'c. i. f.' Japan ports; also I must know time required for delivery f. o. b."

Wants Business With American Manufacturers.

Societe Anonyme Hongroise De Banque Et De Commerce Succursale De Smyrne, Smyrna, West Turkey, Asia, writes to the Manufacturers Record:

"We wish to enter into business relations with some leading manufacturers of the States for different articles interesting our country. We should beg you at the same time to make us known to some leading manufacturers of ducks, which interest our country to a high degree."

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

FRISCO AND L. & N.

Agreement for a North and South Route-Split With Gould Lines, Which May Be Adjusted.

Chairman B. F. Yoakum of the Frisco ystem announces that an agreement has been reached with the Louisville & Nashville Railroad to establish, in connection with the New Orleans, Mobile & Chicago Railway (in which he has been interested largely for some time, and in which, according to his announcement, the Louis ville & Nashville has just become concerned), a new through line east of the Mississippi River from Chicago to New Orleans. This will necessitate the censtruction of two connecting links one from Beaumont, Miss., or some other point on the New Orleans, Mobile & Chicago road, south to the Gulf Coast line of the L. & N., about 50 miles, and another north from Middleton, Tenn., about 40 miles to connect with the Nashville, Chattanoogs & St. Louis Railway-which the L. & N controls-at either Jackson or some point nearby. The Ohio River will be crossed via the new bridge to be erected by the Burlington and other lines near Paducah, Ky., which will afford connection with the Chicago & Eastern Illinois Railroad, a Frisco line, for Chicago. The cost of building the connecting links will be met by bonds of the New Orleans, Mobile & Chicago road.

It has long been though that a co tion might be made between the Frisco and the Nashville, Chattanooga & St. Louis at Paducah for Southern traffic, but the idea of forming an entirely new route through to New Orleans constitutes the surprise in the latest announcement from Mr. Yoakum, because construction has been going on for several months between Marianna, Ark., and Bridge Junction, about 46 miles northeast, to make a short line for the Missouri Pacific system from Memphis in connection with its watergrade line down to New Orleans, that is being rebuilt (as recently described in the MANUFACTURERS RECORD) for joint use of the Missouri Pacific and the Frisco systems under a traffic contract agreed upon last spring.

But it seems, according to Mr. Yoakum that the Gould interests recently informed the Frisco that the Texas & Pacific Railway would be financially unable at this time to rebuild its line from the Junction with the Missouri Pacific's road into New Orleans, 98 miles, and that therefore the traffic arrangement could not be fulfilled as soon as was proposed. After this state ment was received it appears that Mr. Yoakum got busy with the Louisville & Nashville, and his announcement is the result of negotiations with that company. The new route, it is asserted, will be about 50 miles shorter between Chicago and New Orleans than the line west of the Missis sippi River. Furthermore, the New Orleans, Mobile & Chicago road is handling about 8000 to 10,000 tons of freight annually which could be immediately handled by the Frisco toward its final destinations. Connection with Memphis would be over the Frisco's existing line via New Albany, Miss.

Before the advantages of the arrangement with the L. & N. can be enjoyed the connecting links of railroad will have to be constructed. They amount to approximately 100 miles of line, and if they were built in a year, supposing that construction began immediately, it would be quick work. Meanwhile, according to a

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is build (35 mile 25 mile & Char continu necessa cord, a to Cha late report from New York, there is a ability that the contract with the Missouri Pacific may yet be fulfill d if it is nodified. The Missouri Pacific is said to have expended nearly, if not quite, 75 per cent, of the total cost of the reconstruction and new construction described above The old rails have been replaced with 85pound steel, and the existing line is being built up to the requirements of heavy raffic. The new cut-off is also up to date.

It is reported from Mobile that the Pascagoula Northern Railroad, running from Pascagoula, Miss., north to Evanston, which is on the New Orleans, Mobile & Chicago line, 42 miles, has been sold (or at least an option has been given) to the Yookum interests to make the connection south to the Louisville & Nashville. Although this road would not provide as direct a route as could be obtained from Beaumont, it is possible that its purchase might be made, as its line is already in On the other hand, some reconstruction by the Texas & Pacific Railway would soon put that road in shape to handle Frisco traffic, and it does not appear improbable that the difference between the ero parties to the contract of seevral months ago can be adjusted to the satisfaction of both. Whether or not the Missouri Pacific route is used by the Frisco, it now seems assured that the New Orleans, Mobile & Chicago will be extended according to its original plans. It is, moreover, interesting to observe the extension west and south of the influence of the Atlantic Coast Line, which holds control of the Louisville & Nashville road.

A report from New Orleans quotes Judge T. J. Freeman, first vice-president of the Texas & Pacific Railway, as saying that it had not approved the contract with the Frisco, because he considered it unfair to the Texas & Pacific, inasmuch as it demanded the expenditure of about \$2,000,-000 on the 100 miles of line between Ferriday and Anchorage, La., which was absolutely unnecessary for his company. There was no failure to keep any agree ment on its part, as he had always insisted to Mr. Yoakum that the proposed terms could not be agreed upon.

THREE RAILROADS BOUGHT.

Norfolk & Southern Adds 225 Miles to Its Growing System in North Carolina.

Announcement is made at Raleigh, N. C., the western terminus of the road, that the Norfolk Southern has acquired three railroads in the center of North Carolina. which will add 225 miles to its busy system, that now consists of about 600 miles of line, principally in the eastern part of the State. The lines purchased are those of the Raleigh & Southport, the Durham & Charlotte (which includes the Sanford & Troy) and the Aberdeen & Asheboro

It is also proposed, according to the incement, to build an extension from Raleigh to Concord, and perhaps Charlotte, N. C. There is a charter, granted by the Legislature last winter, for the Raleigh, Charlote & Southern Railroad Co. to build direct from Raleigh to Charlotte. E. C. Duncan of Raleigh and associates obtained it. But under the present deal it would not be necessary to construct an entirely new line all the way from Raleigh, as the Raleigh & Southport is building a branch west from Lillington (35 miles south of Raleigh) to Sanford, 25 miles, where it will reach the Durham & Charlotte road, just acquired, and that continues west to Troy, so that all that is necessary is to build from Troy to Con-cord, about 35 miles, and from Concord

constructing about 140 miles from Raleigh to Charlotte.

The Aberdeen & Asheboro road cros the Durham & Charlotte at Star, about 10 miles east of Troy, running north to Asheboro and southeast to Aberdeen. It also has a branch of its own into Troy. At Aberdeen it meets the Aberdeen & Rockfish Railroad, running from there to Hope Mills, a few miles out of Fayette-This road might also be useful to ville. the Norfolk Southern, but there is nothing said to indicate that it might be abed. If it were acquired and extended to Hope Mills it would give the Norfolk Southern a big loop line in the center of the State and running from Lillington, on the Raleigh & Southport, west to Troy, and thence to Fayetteville, the southern terminus of the R. & S. It would not seem unlikely that another line might be built between Fayetteville and Goldsboro. another terminus of the Norfolk Southern. and which would require the construction of about 50 miles of track.

The Raleigh & Southport Railroad is 64 miles long from Raleigh to Fayetteville, a north and south line. John A. Mills of Raleigh is president, and F. J. Lisman of New York is vice-president. Construction has been proceeding for some time on the branch from Lillington to Sanford.

The Durham & Charlotte Railroad extends from Colon to Troy, 50 miles, via Star, Elise and Hallison and Gulf, N. C. J. B. Lennig of Bridesburg, Pa., is president. It runs east and west.

The Aberdeen & Asheboro Railroad connects the two points named in its title by a line 57 miles long. It crosses the Durnam & Charlotte at Star, a few miles east of Troy. Asheboro is about 20 miles north of the intersection and Aberdeen about 35 miles southeast thereof. It runs via Pinehurst, Candor and Star. There are branches thus: Pinehurst to Carthage, 13 miles: Star to Mt. Gilead, 22 miles, and Candor to Ellerbe, 171/2 miles. Henry A. Page of Aberdeen is president.

A report from Charlotte says that the Aberdeen & Asheboro road was acquired previous to the final deal by John A. Mills. president of the Raleigh & Southport, and that in Raleigh it was announced by E. C. Duncan (representing the Norfolk Southern) that it had in turn purchased the R. & S. and the Durham & Charlotte.

The Norfolk Southern Railroad, which was formed several years ago by the merger of several lumber railroads and new lines principally in North Carolina (the system has about 500 miles in that State) runs from Norfolk, Va., south as far as Beaufort, N. C., with branches west to Raleigh and Goldsboro. It also has another branch from Edenton north to Suffolk, Va. E. T. Lamb of Norfolk is president, the other directors being George C. Clark, John I. Waterbury, Oakleigh Thorne, S. L. Schoonmaker, Marsden J. Perry, T. L. Chadbourne, Jr., N. W. Runnion, Frederick Hoff, G. W. Weiffenbach, A. M. Henry, August Roth and Henry J. Wolff of New York, Rathbone Gardner of Providence, R. I.; Caldwell Hardy of Norfolk, Va.; C. E. Foy of Newbern, N. C., and Frank F. Knapp of Hackensack, N.J.

FRISCO ANNUAL REPORT.

Prosperity Reflected Throughout the tem-Gross Earnings Per Mile the Largest It Ever Had.

The St. Louis & San Francisco Railrond Co. has isued its fiftieth annual report, which covers the fiscal year ended June 30, 1911. The operating revenue was \$43,159,227, increase as compared with the next preceding year \$1,993,288; operating expenses \$29,320,400, increase to Charlotte, about 20 miles, instead of \$643,557; net operating revenue \$13,838, The expansion of the industries located Louisville & Nashville will make this con-

827, increase \$1,349,730. After payment of taxes the net revenue was \$12,027,000. Total income was \$1,535,404. Surplus to profit anl loss, after payment of 4 per cent. dividend on the first preferred stock \$1,335,661.

President B. L. Winchell also says that there was built during the year an extension from Whiteland to Menard, Tex., 271/2 miles, and the Marion-Hulbert cutoff in Arkansas, 51/2 miles. The main line mileage is now 5227 miles.

There were bought 53 locomotives, 17 assenger train cars, 1825 freight cars and 23 pieces of miscellaneous equipment.

Concerning the New Orleans, Texas & Mexico Railroad, he says that political conditions in Mexico prevented the interchange of traffic via the Brownsville gateway, and unforseen delays in the completion of construction prevented through passenger train service from being undertaken until near the close of the fiscal year (June 18). The line extends from New Orleans through Houston to Brownsville, Tex., and now operates 977 miles. There is a noticeable development of traffic, the gross earnings for the three months ended September 30 showing an increase of 26 per cent. over the same period in 1910. The cotton acreage tributary to the Brownsville line is more than double over last year. The increased acreage in sugar also indicates a large increase in the movement of that commodity. There has been a marked increase of population along the route. The settlers are mainly farmers.

Of the system in general, it is stated that the gross revenue per mile (\$8319. 16) is the largest in the history of the company.

There were 276 industrial plants, costing approximately \$6,400,000 and employing over 6000 men, located on the lines of the company during the year, and it is estimated by the industrial department that the tonnage capacity of the plants will exceed 59,000 carloads per annum

The freight revenue was \$28,071,781. passenger revenue \$11,999,385. There was \$15,737,164 expended for conducting transportation, \$5,470,178 for mainte nance of way and structures and \$5,738, 290 for maintenance of equipment. The total assets of the company are \$356,-668,565, which includes the franchise and property at \$217,297,466.

WESTERN MARYLAND'S YEAR.

Traffic Growth Gratifying in Spite of Dullness in Coal and Coke Trade.

The Western Maryland Railway Co. has issued its second annual report, which covers the year ended June 30, 1911. Comparisons are made with the year 1910, The income account shows: Operating revenues \$7,200,933, increase \$119,076; operating expenses \$4,440,227, increase \$337,706; net operating revenue \$2,760,-705, decrease \$218,629; total net revenue \$2,761,281, decrease \$218,978; operating income after deduction of taxes \$2,521, 281, decrease \$242,978; gross corporate income \$3,089,716, decrease \$303,360; net corporate income after payment of interest, rentals, etc., \$760,336, decrease \$228,392; balance to credit of profit and loss (after payment of dividend on preferred stock and appropriating \$140,022 for additions and betterments) \$219,413, decrease \$440,750.

After referring to the depression in the coal and coke market, the effects of which were felt upon traffic, President Alex. Robertson says:

"The increase in the movement of miscellaneous freight, comprising, as it does, lumber and all other commodities, reflects a normal growth of these classes of traffic.

on the line has been encouraged and their business fostered. New factories have been established, notable among which are the extensive lime and cement plants at Security, just east of Hagerstown, Md., and at Union Bridge, Md.

"Much attention has been directed to the cultivation and development of orchards, chiefly on the Maryland division. This will transform heretofore barren acreage into traffic-producing territory.

"It is gratifying to report an increase in the passenger earnings of \$90,040.36, or over 10 per cent., bespeaking a steady development of this service, in the absence of the advantages or availability of new territory and attractions to stimulate either tourist or excursion travel. I would state that, despite a less number of passenger trains run, 184.725 additional revenue passengers were carried, as compared with the previous year."

An excellent condition of the track and roadbed is shown by the statements that the main line from Baltimore to Elkins is laid with rail averaging more than 89 pounds per yard, and that the average weight of rail on all main and second tracks is very nearly 81 pounds per yard. Liberal appropriations have been made to meet the physical requirements of the permanent way. Of the 585 miles of line (main and second track), 424 miles are ballasted with stone, 121 miles with cinder and slag and 40 miles are partially hallasted

The increase of more than \$250,000 in transportation expenses is principally attributable to advances in the wages of all employes.

"Substantial expenditures vided," continues the report, "through inome as well as by special appropriation, for improvements and betterments, which embraced the completion of the new Knobmount classification yard and additional passing and mine sidings on the West Virginia division, all of which were touched upon in the last annual report. The turning over of these facilities to traffic has made for improved service and conomical transportation, fully justifying the outlays therefor.

"The construction of the extension from a connection with the existing line at Cumberland, Md., to a connection with the Pittsburgh & Lake Erie Railroad at Connellsville, Pa., 87 miles, has been diligently pressed and is substantially advanced at this time."

The total freight revenue of the road was \$5,938,425; the passenger revenue was \$963,628. The expenses included \$2,457,000 for conducting transportation, \$857,880 for maintenance of way and structures and \$856,038 for maintenance of equipment.

The total assets are \$111,062,265, which include the road and equipment at \$62,505,915.

OPENING RICH COAL LANDS.

Extension of the Wasioto & Black Mountain Railroad and Results Expected.

[Special Cor. Manufacturers Record.] Middlesboro, Ky., November 21.

The Louisville & Nashville Railroad Co has decided to extend its Wasioto & Black Mountain branch on up Clover Fork to Fugate Creek, 30 miles from Harlan, Ky. This will penetrate the richest and most ccessible coal field in Harlan county, running up the valley that divides the Big Black and the Little Black Mountain. which are underlaid with some of the thickest coal seams there are in Eastern Kentucky. This brings the terminus of the Wasioto & Black Mountain road within a few miles of Appalachia, Va., and it is thought that in a very short time the

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nection with its main line running to Norton, Va., so it will have an outlet both ways for the heavy coal and coke traffic that will soon be developed.

Work has already begun on the Ages Creek line, a six-mile extension out of Harlan, which will be a spur line to some large coal operation that will open up early next spring. The town of Harlan is booming as never before, and the influx of people is so rapid that it is impossible for them to get suitable quarters in which to live. A building company has been formed and a contract has been let for the construction of 12 new buildings. Besides this a number of individuals are erecting buildings for sale or rent.

The railroad has been completed to Loony's Creek, on Poor Fork, where the coke ovens of the International Harvester Co. and the Wisconsin Steel Co. are situated, and they will in a very short time be shipping coke and coal from this place.

Harlan will soon be the center of a network of railroads, lines running up almost every creek to large coal operations. All these improvements have been done in the last 24 months, and if no business depression happens in the next few years this will be one of the richest and most extensive coal-operating fields in Kentucky.

H. C. CHAPPELL.

WILL SPEND \$2,000,000.

Virginian Railway to Improve Road and Equipment—Business Growing.

It is announced at Norfolk, where the headquarters of the company are situated, that the Virginian Railway will spend \$2,000,000 on the road, buildings and equipment. This includes, it seems, the lining of 18 tunnels with concrete, the contract for which has just been let to W. W. Boxley & Co. of Roanoke. Sixteen notives will also be bought, the order including 12 Mikado type and 4 Mallet. The shops at Princeton, W. Va., will be finished and yard tracks at various points will be extended. The business of the road is said to be increasing at such a rate that its facilities are outgrown. Wooden trestles and culverts on the Deepwater division are now being replaced with concrete structures.

New Equipment, Rails, Etc.

The awarding of contracts for 8000 cars by the Baltimore & Ohio Bailroad is the largest equipment deal lately announced. They will cost about \$7,000,000, and the order, which is divided am eral manufacturers, includes 2500 box cars, 4000 all-steel gondola cars and 1500 drop-end gondola cars. Of the order for box cars, 2000 are to be built by the South Baltimore Car Works, Curtis Bay, Md., and 500 by the Mt. Vernon Car Manufacturing Co., Mt. Vernon, Ill. The all-steel gondolas are divided thus: 2000 with the Standard Steel Car Co., Butler, Pa., and 2000 with the Cambria-Steel Co., Johns-The 1500 drop-end gondolas town. Pa. will be built by the Pressed Steel Car Co., Pittsburgh. It is further reported that the road will buy 1000 more cars.

The Virginian Railway will purchase 12 heavy Mikado type locomotives and 4 Mallet compound locomotives.

W. W. Boxley & Co., contractors, Roanoke, Va., will be in the market for some standard-gauge equipment in connection with their contract for lining tunnels on the Virginian Railway.

The Norfolk & Western Railway is reported getting prices on 25 locomotives.

The Baltimore & Ohio has ordered 400 tons of bridge steel from the Fort Pitt Bridge Co.

The Macon Railway & Light Co. has ordered 12 pay-as-you-enter cars, each to seat 60 passengers.

The Missouri Pacific Railway has ordered a Mallet compound locomotive from the Baldwin Locomotive Works, Philadelphia.

The Maysville (Ky.) Street Railway is reported receiving 5 large motor cars and 2 enclosed trailer cars.

The Pennsylvania Railroad has ordered 3 Mallet compound locomotives from the Baldwin Works.

The Missouri & North Arkansas Railroad is reported in the market for 100 flat cars.

The Chesapeake & Ohio Railway is reported to have ordered about 1100 tons of bridge steel, the contracts being divided among the Indiana Bridge Co., the Louisville Bridge Co., Louisville, Ky., and the Mt. Vernon (Ill.) Bridge Co. The railroad is also reported in the market for about 1250 tons of steel center sills for cars to be built at Huntington, Va.

The Texas & Pacific Coal Co., Thurber, Tex., is reported to have ordered 100 gondola cars from the Pressed Steel Car Co.

The Atlantic Coast Line's Railroad order will be rolled thus: 12,000 tons by the United States Steel Corporation and 7000 by the Maryland Steel Co.

The Georgia Railroad has ordered 2000 tons of open-hearth steel rails to be roiled at Ensley, Ala.

The Chesapeake & Ohio has ordered 1000 tons of open-hearth rails from the Gary (Ind.) plant of the United States Steel Corporation.

The St. John's Electric Co., St. Augustine, Fla., will, it is reported, expend \$15,-000 or \$20,000 for new equipment and rails.

The Central of Georgia Railway, it is reported, will buy 30,000 tons of rails.

The San Antonio & Aransas Pass Railway is reported in the market for 20,000 tons of rails.

A Contract to Be Let Soon.

President Frank Roberts of the Valdosta, Moultrie & Western Railway Co., Valdosta, Ga., says that contract will be let soon for the extension from Moultrie to Fort Gaines, Ga., 90 miles, on the way to Montgomery, Ala., the distance from Fort Gaines to Montgomery being 100 miles. Route for the first 90 miles is permanently located and right of way and terminal sites secured. The location for the line in Alabama will be completed within 30 days. The construction work is to begin early in 1912. When all is completed the road will be 230 miles long from Valdosta to Montgomery.

Has Taken a New Contract.

J. F. Lamb of Thomasville, Ga., has just completed the grading for the Gulf Line Railway from Bridgeboro to Camilla, Ga., and has moved all of his forces to the Hawkinsville & Western Railway at Hawkinsville, Ga. G. T. Lemmon is engineer and superintendent.

Railroad Notes.

Reports from Statesboro, Ga., say that the Savannah & Statesboro Railroad will operate the Savannah, Augusta & Northern Railroad, which is owned by W. J. Oliver and others.

The Macon Railway & Light Co. has secured through its new financing recently reported \$300,000, which will be expended to extend several of its lines, to erect a car barn and power-house and to purchase 12 cars.

The Kansas City, Mexico & Orient Railway, it is reported, has applied for authority in Kansas to issue \$20,000,000 of bonds for the continuation of construction next year on its line from Kansas City to the west coast of Mexico.

Edwin Hawley, according to reports

from Des Moines, Iowa, will build extensions of the Minneapolis & St. Louis and the Iowa Central lines, which will give the Hawley interests a route of their own from Winnipeg, Canada, to the Gulf of Mexico at Galveston, which will be reached over the Missouri, Kansas & Texas Railway. A link will be built from the Iowa Central to St. Louis, about 150 miles. The Minneapolis & St. Louis will be extended to Winnipeg.

TEXTILES

The Cotton Movement.

In his report for November 17, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 78 days of the present season was 5,862,767 bales, an increase over the same period last year of 839,442 bales. The exports were 3,130,393 bales, an increase of 621,683 bales. The takings were, by Northern spinners, 601,321 bales, a decrease of 135,645 bales; by Southern spinners, 611,932 bales, an increase of 31,159 bales.

Brevard Cotton Mills.

The Brevard Cotton Mills of Brevard, N. C., mentioned last week as incorporating with a capital stock of \$100,000 to take over and operate the plant of the Transylvania Cotton Mill Co., has organized with W. C. Cleveland of Greenville, S. C., as president and treasurer, and J. H. Williams of Greenville as vice-president and secretary. This company's plant is equipped with 4500 ring spindles and accompanying machinery for the production of cotton yarns.

New Machinery Installed.

The Indian Head Mills of Alabama, Cordova, Ala., has installed 66 deliveries of drawing, five pairs of 11x5½ slubbers, one pair of 9x4½ intermediate frames, nine pairs of 8x4 fly frames and 405 36-inch looms. The looms were furnished by the Draper Company of Hopedale, Mass., and the other machinery by the Saco-Pettee Company of Newton Upper Falls, Mass.

Two Companies Increasing Capital.

The Simpsonville (S. C.) Cotton Mills will hold a stockholders' meeting on December 19 to vote on increasing capital stock from \$500,000 to \$750,000, and the Fountain Inn (S. C.) Manufacturing Co. to vote on an increase from \$300,000 to \$550,000.

Cloth Bag Manufacturers.

The Red Cedar Kildust Factory of Christiana, Tenn., wants to correspond with cloth bag manufacturers relative to making a large quantity of fancy bags.

Textile Notes.

It is reported that J. T. Sanderson of Clarksburg, W. Va., is organizing a \$250,-000 stock company to build a woolen mill at San Angelo, Tex.

The Piedmont Cotton Mills of Egan, Ga., will install 22 broad looms. This company is now erecting an additional building.

It is reported that the Locke Cotton Mills Co. of Concord, N. C., has completed the installation of additional machinery, comprising 4489 spindles and the necessary carding equipment.

At its meeting last week at Elizabeth City, the North Carolina Drainage Association elected Dr. Joseph Hyde Pratt of Chapel, president, and George R. Boyd of Wilson, secretary.

MINING

A Valuable Silica Deposit Being De. veloped in Florida.

After a persistent search in many sections of Florida for nearly a vear, Dr. E. W. Rettegi, a chemist, has discovered large quantities of almost pure silica at Lake Butler, near Tarpon Springs, Fla. The analysis of this sand by Ledoux & Co., engineers, chemists and assayers, 90 John street, New York, has given the following percentage of the principal ingredients: Silicon, 99.345 per cent.; iron oxide, .058 per cent.; aluminum, .297 per cent.; lime, .014 per cent.; magnesia, .01 per cent.

This analysis places the silica in a very high grade, equal to or even better, it is claimed, than that which has been im ported from Germany and England. It is suitable, after proper treatment, for use in making all forms of glass, including lenses, for enamel where a very high polish is desired, artificial stone, etc. This deposit was found on the land of the Tampa & Tarpon Springs Land Co. of Tampa. The Triton Silica Mining & Manufacturing Co., organized by Dr. Rettegi, and of which he is president, has purchased a tract of land from the Tampa & Tarpon Springs Land Co., and has also secured an option on adjoining land of 120 acres from W. D. Williams. It is estimated that 6,000,000 tons of silica ranging in value from \$20 to \$50 per ton can be mined from this deposit, which averages five feet in depth for the whole area. The agent for the company in the North is the North American Selling Co., 120 Liberty street. New York. It is planned to mine the silica and ship it by rail to Tampa, thence by water to New York and Boston. The mining will require 400 to 500 men. It is expected that the company will eventually build a manufacturing plant in Florida to make glass products. A building is now being constructed to manufacture an artificial stone by the process patented by Dr. Rettegi. This stone is claimed to be very smooth, and harder than granite, and that it resists the deteriorating action of water and frost, and can be molded in any desired shape and turned out ready for use in 24 hours. The company will also manufacture brick, building blocks, tile water pipes, bathtubs, monuments, etc.

The officers of the Triton Silica Mining & Manufacturing Co. have located at Tarpon Springs, and, in addition to the building which is under construction, they have commenced active operations on the tract, putting in side-tracks and getting ready to make shipments.

It is said that the Tampa & Tarpon Springs Land Co. owns large bodies of land containing silica of the same grade as that on the property which the Triton Company is developing.

The Electra Oil Field.

Dr. Wm. B. Phillips, director of the University of Texas bureau of economic geology and technology, in a report on the Electra oil field in Wichita county, says:

"During the last several months a great deal of activity has been shown in this district. Not a few experienced oil men were, to say the least, not entirely optimistic concerning it. It is not too much to say that up to a month or six weeks ago there were hopes instead of realizations. But during this time, and within the last three weeks, the situation has changed radically and for the better. It is likely that the present production touches the 9000-barrel mark, and that the Electra field is now the largest pro-

point of this con rion of much va "We cerning easy re: As early of highthis dis Works. nearly (Geologie port, 18 from Ar gun cap the repo made th ter grad Philadel between railroad Gen. Ge was wit Expedit called to to 1884 ploiting n misap the alm facilities "With the oper of railre

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The selected Ga., for it propo

and adaptability for various commercial

In cutting in half the sample received,

so as to send it to the Forest Service of

the Government, it was necessary to use

a hack saw instead of a regular wood saw

The Forest Service, in reporting upon

"Little is known regarding the commer-

cial uses of the wood of different species

of Casurina in this country, which are

most abundant in Australia, but which

are also found in Southern India and in

the Indiana Islands. One or two species

are cultivated for ornament in our South-

ern States and in the frostless portions

"These trees grow very rapidly, even

under our soil and climate conditions.

The wood, which is very hard and durable,

is much used for fuel, construction pur-

poses and for outside boarding and

shingles. It needs to be very carefully

seasoned, in order to prevent checking and

warping. However, when thoroughly sea-

soned the wood appears to remain in place

well, and, while it is rather difficuit to

work on account of its hardnes, it is hand-

some, taking an excellent finish, and suit-

able for some grades of furniture and fin-

ishing wood. We do not know of any

use of the wood for commercial purposes

"Casurina wood is known under a num

ber of different names, such as beef

wood, swamp oak, forest oak, bull oak and ironwood. In the green state it

weighs about 72 pounds per cubic foot, but

air-dried wood ranges from about 50 to

From this report it is shown that very

little is known regarding the commercial

possibilities of this wood. From a study

of its character and the high polish it

takes, there should be no question but

that it would prove adaptable to certain

commercial uses, especially when its quick

With the gradual depletion of the coun-

try's supply of hardwoods, manufacturers of products from such material will no

doubt be interested in investigating the

Alabama Chemical Products Co.

The Alabama Chemical Products Co.

has been incorporated with \$250,000 capital stock to develop aluminum phosphate

deposits on the Coosa River, near Coal

City, Ala., and plans to build at Rome,

Ga., a plant to reduce the ore to aluminum

oxide and phosphoric acid. Twenty-two

pits have been sunk on the property, and

it is claimed that over 200,000 tons of ore have been exposed. This company is sub-

sidiary to the Coosa Valley Co., the \$2,-

000,000 corporation, whose plans for de-

veloping iron and other properties were detailed recently in the MANUFACTUREUS

RECORD. Dr. E. J. Spratling, Empire Life

Building, Atlanta, is president of the

Silver-plated Hollowware Equipment

Standard Silver Co., Ltd., 33-41 Hayter

"We are at present building a five-

story factory of concrete, brick and steel, to cost about \$90,000 when equipped, and

propose making the plant an ideal one for

the manufacture of silver-plated hollow-

ware on Britannia metal, brass, German silver and copper. The building is being

handled by our own construction depart-

ment, who will be interested in modern

street, Toronto, Canada, writes to the

Coosa Valley Company.

MANUFACTURERS RECORD:

113,204 144,271 72,134 50,892 39,942 17,479 34,841 32,855 14,690 (*)

growing features are considered.

possibilities of Casurina wood.

55 pounds per cubic foot."

the sample sent, writes the MANUFACTUR-

because of its hardness.

ERS RECORD:

of California.

in this country.

LUMBER

[A complete record of new mills and build-

ing operations in the South will be found in the Construction Department.]

PRODUCTION OF LUMBER.

Variations in the Country's Cut in the Past Four Years.

of lumber, lath and shingles in the United

States during the calendar years 1910,

1909, 1908 and 1907 has been issued by

The reported production of lumber in

the United States during 1910 was 40,-

018,282 M feet board measure, as against

44,509,761 M feet in 1909, 33,224,369 M

feet in 1908 and 40,256,154 M feet in

These figures of production are not en-

tirely comparable by reason of differences

in the completeness of the canvass of the

mills in different years. The number of mills covered by the reports in each year

has been as follows: 1910, 31,934; 1909,

The number of mills included in the

statistics for 1910 is also not strictly com-

parable with the number for 1908 and

1907, although the canvass of all three of

these years was made by correspondence. The figures for 1910 do not include the

cut of any mills sawing less than 50 M

feet during the year, while the figures for

such mills, so far as they were reported,

were tabulated in the earlier years. The

exclusion of these very small mills, how-

the reported output.

State,
Washington...
Louisiana.
Mississippi.
Oregon.
Wisconsin.
Texas.
Arkansas...
North Carolina.
Michigan.
Virginia.
Alabama.
Minnesota...

ever, has comparatively little effect upon

The softwoods supplied 31.160,856 M

feet board measure, or 77.9 per cent. of the

total production in 1910, while the hard-

woods contributed 8,857,426 M feet, or

22.1 per cent. The five leading species

State.
Washington
Louisiana
Mississippi.
Oregon.
Wisconsin.
Texas.
Arkansas.
Arkansas.
North Carolina
Michigan.
Virginia.
Alabama
Minnesota.
West Virginia.
California.
Pennsyivania
Georgia.
Tennessee
Florida.
Maine.
Kentucky.
Idaho.
South Carolina.
New York
Missouri.
Ohio.
New Hampshire.
Indiana.
Montana.
Vermont
Massachusetts.
Oklahoma.
Maryland.
Connecticut
Colorado.
Illinois.
New Mexico.
Iowa.
Arizona.
Delaware.
New Jersey
Wyoming.
South Dakota.
Rhode Island.
Utah..
Ransas.
All other States.

United States......Lath, thousands......Shingles, thousands....

Unknown Florida Wood.

sent the MANUFACTURERS RECORD by Mr.

J. E. Ingraham, vice-president of the Florida East Coast Railway, with the ex-

planation that this sample was cut from

a tree eight years old grown at West

Under very ordinary conditions, Mr.

Palm Beach, Fla.

A sample of Casurina wood was recently

48,112; 1908, 31,321; 1907, 28,850.

Census Director E. Dana Durand.

1907.

A preliminary statement of the output

cut in 1910 were yellow pine, Douglas fir,

oak, white pine and hemlock, ranking in the order named, the aggregate output

from these woods being 29,057,525 M feet,

or 72.6 per cent, of the total production

The cut of yellow pine lumber in 1910

was 14,143,471 M feet, or more than one-

third of the total production of lumber

from all species in the United States dur-

Douglas fir was the species next to yel-

low pine drawn upon most heavily as

lumber material during 1910. The pro-

duction from this wood amounted to 5,203,644 M feet, or 13 per cent. of the

Oak, by far the most important hard-

wood cut into lumber in the United States,

supplied material for 3,522,098 M feet of

umber in 1910, and ranked third in point

of production. The manufacture of oak

lumber is very widely distributed among

the States, an output from this species of

timber having been reported by 37 States

during the past year. Nevertheless, the

production of oak lumber is to a consider-

able extent centered in West Virginia,

Kentucky and Tennessee, where nearly

35 per cent. of the output in 1910 was

as lumber material in the United States

during 1910, only about 40 of these were

cut in commercial quantities or for other

than local consumption. Less than one-

third of the species cut showed increases

over 1909, the more important of these

being Douglas fir, Western pine, red wood,

cedar, white fir, sugar pine and lodgepole

pine-all, with the exception of cedar, be-

ing species cut exclusively in the Western

or Pacific Coast States. These ranged

from 4.1 per cent, in the case of Western

pine to 48.2 per cent, in that of white fir.

The comparative summary follows:

square at the top) inside of 12 years, mak-

ing it rank with Eucalyptus in point of

quick growth. Casurina wood, however, is much harder than Eucalyptus, of

quicker growth and will take a very high

But little is known regarding the wood, and it was sent to the MANUFACTURERS

RECORD with the hope that some informa-

Ingraham advised, the tree will attain a tion might be obtained regarding its value equipment applicable thereto."

*Included in "all other States." †Includes Kansas and Nevada for 1907 and 1908 and Nebraska and Nevada for 1909 and 1910.

polish.

A Remarkable But Comparatively | merchantable size (20 feet long, 12 inches

While 53 kinds of timber were utilized

total cut from all species.

from all species for that year.

ing that year.

manufactured

north of Houston, second.

ducer in Texas, with the Humble field,

"The investigations which this bureau

has now in hand in that oil field will

be of the greatest value in its develop-

ment, and for the reason that a large

number of well records have been turned

over to us for study and comparison. These

records are not generally available, nor has

any attempt been made to correlate them

until this time. There has been little or

no study of the oil and gas fields of Clay

and Wichita counties from the stand-

point of structural geology, and it is in

this connection that the cordial co-opera-

tion of the producing companies is of so

"We have had letters of inquiry con-

corning the copper ore that occurs within

easy reach of these oil and gas fields.

As early as 1874 more than 10,000 pounds

of high-grade copper ore was sent from this district to the Schuylkill Copper

Works, and the different lots averaged

nearly 60 per cent. of copper (Texas

Geological Survey, Second Annual Re-

port, 1890, p. 450). Some of the ore,

from Archer county, was used for making

gun caps for the Confederate Army. In

the report just quoted the statement is

made that several hundred tons of the bet-

ter grade ore was mined and shipped to Philadelphia and Baltimore somewhere

between 1865 and 1874, the distance to a

railroad in some cases being 250 miles. Gen. Geo. B. McClellan, who died in 1885,

was with Captain Marcy in the Red River

Expedition in 1852, and had his attention

called to these ores at that time. In 1882

to 1884 he organized a company for ex-

ploiting and working them, but, owing to

a misapprehension as to their nature and

the almost total lack of transportation

facilities, the enterprise did not succeed.

the opening of the region by several lines

of railroad, traversing the ore regions, it

rich copper deposits could be utilized."

Shale for Clay Products.

Chamber of Commerce,

The Chamber of Commerce has located

and has tested what is pronounced to be

one of the richest beds of kidney shale in

Texas (free from carbon or lime). The

Chamber has on display roofing tile, face

and vitrified brick made from this shale. There is 20 acres in the tract which has been tested. This shale has been found

within 12 inches of the top of the ground.

A drill was run down to a depth of 20

feet without getting through this bed of

shale. The land lies within 300 yards of the main line of the Chicago & Rock

Island Railroad, and is only 60 feet from

the Fort Worth & Denver. The Cham-

ber of Commerce is trying to interest out-

side capital to co-operate with local capital

to put in a plant for the purpose of making Devonshire, face and vitrified brick;

also fireproofing and hollow blocks. In-

formation will be furnished by the Cham-

Kenessee Coal Co.

The Kenessee Coal Co. of Somerset,

Ky., has incorporated with a capital stock

of \$100,000 and will develop 1080 acres

of 4½ feet domestic coal. Bonds to the amount of \$25,000 or \$50,000 will be sold.

The incorporators of the company include

J. M. Ross, John B. Peratt and G. W.

The Central of Georgia Railroad has

selected 40 acres of land near West Rome,

Ga., for one of the 15 experiment farms

it proposes to operate along its lines.

G. H. HARRIS, Secretary.

ber of Commerce.

Hill, all of Somerset.

Editor Manufacturers Record:

Bowie, Tex., November 11.

ould appear that some, at least, of these

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Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The Manufacturers Record seeks to refly the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription to the Daily Bulletin is included for the contract period.

BRIDGES, CULVERTS, VIADUCTS

Fia., Jacksonville.—Duval County Commissioners awarded contract to Logan Concrete & Engineering Co., Jacksonville. to construct county's half of bridge over Nassau River, on Duval (Fernandina) Rd.; structure is to be built in connection with Nassau county; total length, 550 feet; estimated cost \$6000; Gali L. Barnard, County Engineer.

Fla., Jacksonville.—Duval county will construct reinforced concrete bridge over Goodby's Lake on John Anderson highway; bids received until December 6; Gail L. Barnard, County Engineer. (See "Machinery Wanted.")

Fig., Jacksonville.—Duval county will construct six-foot diameter corrugated iron culvert on New York Ave.; also two reinforced concrete culverts 24 feet long over Trout Creek at Dinsmore, on Kings Rd.; bids refeived until December 6; Gail L. Barnard, County Engineer. (See "Machinery Wanted.")

Fia., Quincy.—Gadsden County Commissioners appointed committee to confer with Leon County Commissioners in regard to construction of bridge over Ocklocknee River.

Mo., Kansas City.—Louis R. Ash, City Engineer, prepared plans for proposed viaduct to connect 23d St. trafficway with new Kansas Ave. bridge; plans coincide with designs adopted for portion of structure on Kansas side; viaduct on Misseuri side will be 1800 feet long, extending from 23d and Brook Sts. to 19th St. and State line, with approach on Wyoming St.

Mo., Kansas City.—Kansas City Terminal Co. awarded contract to William P. Carmichael Company of St. Louis, Mo., at about \$50,000 to construct proposed McGee St. vladuct; J. L. Darnell is company's Kansas City representative, with offices in New England Bldg.

Okla., Chandler.—Lincoln county will construct 100 steel bridges; contract for 10 structures awarded to company of Rochester, Ind., and for one to company of Kansas City, Mo.

Okla., Kingfisher.—Bond issue for Chisolm Trail Highway construction, including erection of recently-noted bridge, was defeated. (See "Road and Street Work.")

S. C., Rock Hill.—B. Herman, chief engineer maintenance of way, Southern Railway Co., 1300 Pennsylvania Ave., Washington, D. C., states his office has received no information relative to recently-reported construction of concrete bridge at Rock Hill.

Tex., Fort Worth.—City will extend Allen-Ave. viaduct; Mr. Von Zuben, City Engineer.

W. Va., Fairmont.—Grafton, Fairmont & Clarksburg Rallroad Co., H. M. Fry, chief engineer, Fairmont, contemplates construction of three steel bridges, 400, 600 and 1250 feet long, respectively; also four small steel deck girder bridges about 60 feet long.

CANNING AND PACKING PLANTS

Fla., Hawthorne.—Establishment of vegetable canning factory is contemplated; W. C. Mahin, secretary Board of Trade, may be addressed. (See "Machinery Wanted.")

Fla., Hawthorn. — Consolidated Canning Co., Fred S. Gray, general manager, Jacksonville, Fla., will establish branch cannery in Hawthorn.

Fla., Orlando.—Gulf Coast Fruit Association will, it is reported, erect packing plants; awarded contract to L. C. Lowe, architect, Huntington, W. Va., and J. H. Braden, contractor, Fullerton, Ky. (See "Land Developments.")

Tex., Stamford.—Thomas Weitch has contract to erect two-story building costing \$10,000 to be occupied by Armour & Company; main offices, Chicago, Ill.

Va., Dillwyn.—James S. Steele will establish canning plant; information furnished by Dillwyn Realty Co. of Dillwyn.

Va., Portsmouth.—Norfolk County Supervisors voted to construct bridge across Indian Creek. (See "Road and Street Work.")

CLAYWORKING PLANTS

Fia., Tarpon Springs—Bricks, etc.—Triton Silica Mining & Manufacturing Co., Dr. E. W. Rettigi, president, contemplates manufacture of brick, building blocks, tile, water pipes, bathtubs, monuments, etc.; is now erecting building for manufacture of artificial stone. (See "Mining.")

Miss., Byhalia-Brick, etc.-Improved Brick & Stone Co., W. L. Sanderson, manager, is preparing to incorporate to establish Sanderson process brick plants.

Mo., St. Louis-Terra-cotta J. Rollins & Co., 3730 Delmar Blvd., are organizing company to establish terra-cotta plant.

Tex., Athens—Pottery.—Athens Pottery Co. acquired pottery of P. E. Miller at Athens and of Winfield Pottery Co. at Winfield, Tex.; will install machinery and enlarge plants. (Company recently reported incorporated with \$100,000 capital stock by P. E. Miller and others.)

Tex., San Benito-Clay Products.—Rio Delta Clay Products Co. incorporated with \$100,-000 capital stock by Sam Householder, W. D. Carpenter and E. W. Watts.

Tex., Winfield - Pottery. - Athens Pottery Co. acquired plant of Winfield Pottery Co.; will install machinery and enlarge plant. (See Tex., Athens.)

W. Va., Paden City—Pottery.—Paden City Pottery Co. awarded contract to Patterson Foundry & Machine Co., East Liverpool, O., for machinery and construction of kilns.

COAL MINES AND COKE OVENS

Ky., Burchfield (not a postoffice).—Black Mountain Coal Co., Barbourville, Ky. (recently noted organized), will develop 2750 acres; daily output about 500 tons; will soon open bids on mining machinery; president, Samuel Bennett; vice-president, Wm. Burchfield; secretary, H. B. Jones; general manager, H. E. Bullock, Pineville, Ky., to whom machinery bids should be addressed. (See "Machinery Wanted."

Ky., Pineville.—Thomas Cairns has, it is reported, purchased coal and timber lands from Louisville (Ky.) Property Co. for \$1,800,000; lands include 14 coal mines operating in Bell and Whitley counties.

Ky., Worley.—Kenessee Coal Co., Somerset, Ky., incorporated with \$100,000 capital stock by J. M. Ross, John B. Pieratt and G. W. Hill, all of Somerset, to develop 1080 acres of 4½ feet domestic coal.

Tex., Calvert.—Southwestern Fuel & Manufacturing Co., Waco, Tex., secured 580 acres of coal land in Brazos bottom; will sink shaft and mine lignite coal.

Tex., Rockdale.—Rockdale Coal Co. incorporated with \$30,000 capital stock by E. A. Camp, William M. Wells and H. E. Rowlett.

Va., Norfolk.—Virginia Coaling Corporation incorporated with C. L. Thatcher, Jr., president; Joseph E. Alexander, secretary, both of New York; E. J. Rudyard Wigg, vice-president, Norfolk.

W. Va., Charleston.—New River & Ohio Coal Co. incorporated with \$160,000 capital stock by M. T. Roach, Staige Davis, E. R. Calloway and others.

W. Va., Parkersburg. — J. E. Chilton, Charleston, W. Va., purchased 3400 acres coal on Little Coal River; Mr. Chilton represents Boon County Coal Corporation, composed of Philadelphia capitalists.

CONCRETE AND CEMENT PLANTS

Ala., Leeds.—Standard Portland Cement Co., J. Ross Hanahan, president, Charleston, S. C., will double capacity of Portland cement plant. Mr. Hanahan telegraphs Manufacturers Record: "Leeds plant will increase output by 1200 barrels dally, making dally capacity 2400 barrels; three large kilms; steel buildings; steam turbine power; F. H. Lewis, engineer, Birmingham, Ala.; expect increase summer 1912." Addition is reported to cost \$500,000.

Ga., Lafayette.—Horine Development Co., E. M. Horine, Atlanta, Ga., is reported as to organize \$2,000,000 stock company to build plant for daily capacity 2000 barrels Portland cement, arranged for doubling. Mr. Horine wires Manufacturers Record: "Report that cement plant was decided upon for early erection by one company is erroneous; we are, howover, considering building large rock-crushing and lime plant at this time." (Lately mentioned. See "Miscellaneous Factories.")

Va., Roanoke.—James Whitcomb, Charlotte, Mich., will, it is reported, establish cement and paint factory.

W. Va., Berkeley.—Security Cement & Lime Co., Equitable Bidg., Baltimore, Md., has plans by E. W. Lazell, Wilmington, Del., for lime-plant addition to cost about \$30,000; increased daily capacity 1000 tons crushed stone and 1000 bushels of lime, making total daily capacity about 2000 tons of crushed stone and 5000 bushels of lime; T. E. Beevee, manager at Berkeley. (Recently mentioned.)

COTTON COMPRESSES AND GINS

Ga., Oxford.—A. T. Peek will rebuild cotton gin recently burned at loss of \$3000.

Miss., Cary.—Cary Ginnery, E. Klaus, president, will rebuild gin recently reported burned; erect 22x60-foot building; placed machinery contract; 4 70-saw stands and press; daily capacity 40 bales; J. G. Davis, construction engineer.

Okia., Pauls Valley.—Pauls Valley Cotton Oll & Gas Co. incorporated with \$5000 capital stock by J. J. Cummings, S. C. Edwards and W. H. Fain.

Tex., Lawn.—Farmers' Union Gin Co. incorporated with \$10,000 capital stock by H. B. Cook, R. F. Cannon and W. R. Zimmele.

Tex., Lufkin.—Cotton Belt Gin & Lumber Co. incorporated with \$10,000 capital stock by I. D. Fairchilds, T. W. Largent, E. F. Dunlap and others.

Tex., Marshall.—Herman Loeb will erect compress; machinery purchased.

DRAINAGE AND IRRIGATION

La., Barataria.—Oscar D. Weed, 160 Broadway, New York, contemplates organisation of company to drain and develop 10,000 acres of land on Bayou Rigolets, near Barataria. (See "Land Developments.")

La., Hohen Sols.—Bayou Bijou Drainage

District will vote November 28 on \$60,000 bond issue for construction of drainage system; district was organized by joint ordinances of police juries of Ascension and Iberville parishes, and comprises 11,186 acres; J. T. Guyton, president Drainage Commissioners.

La., New Orleans.—Jefferson Land Co. purchased 8800 acres in Jefferson parish, of which 3000 acres are in cultivation and balance in timber and wet lands; latter are to be reclaimed. William A. Benton, Amesville, La., is superintendent. (See "Land Developments.")

Md., Seneca.—Drainage Division, Department of Agriculture, has prepared plans for reclaiming 2200 acres of swamp land in Montgomery county between Seneca and Edward's Ferry on north bank of Potomac River; John R. Haswell, resident engineer for State, is in Easton, Md., to investigate conditions.

Okla., Hobart.—Company is to be incorporated with \$25,000 capital stock to irrigate several thousand acres; C. G. Keiger, county engineer, is making survey.

S. C., Georgetown. — Georgetown Farm Land & Homeseckers' Co., W. D. Morgan, president, is having drainage survey made by engineers under charge of F. G. Eason, U. S. Drainage Engineer; now dividing about 15,000 acres into 25-acre farms. (Recently noted.)

Tex., Barstow.—Barstow Irrigated Canal Co. contemplates, it is reported, improvements and additions, including construction of flood water reservoir at Sand Lake.

Tex., Houston.—Harris County Commissioners authorized organization of drainage district No. 5 and will arrange for drainage of 50,000 acres; N. G. Kalb, C. Mendelsohn and F. E. Jones have been appointed committee to have charge of preliminary work; Mr. Kalb will be engineer of district.

ELECTRIC PLANTS

Ark., Ashdown.—City Council granted Texarkana Ice Co. 25-year franchise to operate electric-light system.

Ark., Gravette.—City will issue about \$5,000 of bonds for construction of electriclight plant and water-works; E. L. Chatfield, J. F. Dorsett and G. A. Hughes committee to have charge of plans and specifications. (Recently mentioned.)

D. C., Washington.—Town Council of Takoma Park authorized construction of electric-light and power plant; E. E. Blodgett is chairman of committee.

Fla., Fort Pierce.—City will vote December 12 on \$15,000 bond issue for construction of electric-light system; R. Whyte, Mayor.

Fla., Madison.—City will vote January 2 on issuance of bonds for purchase of Madison Electric Power Co.'s plant; purchase price to be \$30,000; improvements will be made if bonds are authorized. Address The Mayor.

Fia., Oriando.—Gulf Coast Fruit Association will, it is reported, erect two powerhouses and two substations; awarded contract to L. C. Lowe, architect, Huntington, W. Va., and J. H. Braden, contractor, Fullerton, Ky. (See "Land Developments.")

Fla., St. Augustine.—St. Augustine Electric Co. organized with W. M. Bostwick, Jr., president, Jacksonville, Fla.; O. H. P. Fant, vice-president, St. Augustine; B. E. Dysos, secretary-treasurer, St. Augustine; will acquire property of St. Johns Light & Power Co., including electric-light and power plant and street railway; will probably improve power plant.

Ga., Baxley.—City engaged Lyon Electric Co., Jacksonville, Fia., to supervise construction of electric-light plant; \$15,000 band issue recently reported voted.

Ga., Jonesboro.—City will vote on bond is sue to enlarge electric plant and construct water-works and sewerage system; W. L. Watterson, Mayor.

Ga., Macon.—Macon Railway & Light Co. and Central Georgia Power Co. will make various improvements, including principally extension of transmission lines and erection of power-house and fireproof car bars: \$300,000 available; A. B. Leach & Co. of New York are financing companies.

Ky., Falmouth.—City voted to construelectric-light plant. Address The Mayor.

Mo., Kirksville.—Kirksville Gas, Heat & Electric Co. increased capital stock from \$50,000 to \$100,000.

Okla., Wagoner.—Wagoner Electric & Gas Co. incorporated with \$1500 capital stock by

23, 1911.

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POR the benefit of business concerns, engineers, con-

others who find it profitable to follow up daily the industrial, commercial, railroad and financial development of

the South and Southwest as published in this Construc-

tion Department, we issue every business day in the year a Daily Bulletin of the Manufacturers Record.

Bulletin is invaluable to all business people who want to

keep in daily touch with the organization of business

enterprises of all kinds throughout the whole South. Un-

limited possibilities for the creation of business, for secur-

ing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the

The Bulletin is an exceptionally desirable advertis-

The construction news as published in the Daily

tractors, machinery manufacturers, dealers and

gunther.
g. C., Honea Path. — Board of Public
Works, John F. Monroe, chairman, awarded
contract to Cothran & Cothran, engineers,
Greenwood, S. C., to construct water-works
and electric-light plant; cost \$50,000. (Presly noted.)

g. C., Johnston.—Electric Light, Ice & Fuel (o. incorporated with \$20,000 capital stock by F. M. Boyd and B. S. Boyd.

Tenn., Jellico.-Jellico Electric Light, Heat Tenn., Jellico.—Jellico Electric Light, Heating & Power Co. will expend about \$12,000 for proposed improvements to electric-light plant; awarded contract to Knoxville (Tenn.) company to erect smokestack 103 fet high, 4 feet 6 inches in diameter; first 2 feet will be of brick and balance of iron; has installed 200-horse-power boiler built for 100 pounds pressure; will install direct-constead engine and generator to be of 300 opportunity presente, with install detection and generator to be of 300 horse-power and have capacity of 5000 lights.

Tenn., Memphis.—J. & J. Electric Co. incorporated with \$250,000 capital stock by Charles Johnson, Claude Johnson, W. T.

McLain and others.

Tex. Beaumont.—Beaumont Electric Light & Power Co. Incorporated with \$880,000 capital stock by C. W. Kellogg, Jr., Dallas, Tex.; g. J. Emerson, Beaumont, and Marshall M. Phinney. Boston, Mass.; company will be controlled by Stone & Webster Engineering Corporation, 147 Milk St., Boston, Mass. (Stone & Webster recently reported to have purchased electrical property of Beaumont Ice, Light & Refrigerating Co.)

rex., Dallas.—Hancock Electric Co. incorporated with \$5000 capital stock by W. L. Hancock, Abe Hyman and J. B. Adoue, Jr.

Tex., Dallas. — Dallas Electric Light & Power Co. will enlarge building and increase capacity of electric-light and power plant by 5000 kilowatts; present capacity, 5800 kilowatts.

Tex., Decatur.—City will vote on bond issue to purchase and improve water-works and electric-light plant. Address The Mayor, (See "Water-Works.")

Tex. Harlingen.-City engaged Randall-Jes., Harlinger.—City engaged handsin-loregrove-Wyman Company, Houston, Tex., to supervise construction of electric-light plant; A. W. Cunningham, Mayor. (See "Water-works.")

Tex., Hamlin.-Hamlin Electric Light, Heat & Power Co. will establish plant costing \$10,000. (Recently reported incorporated.)

W. Va., Belleville.—Government awarded contract to M. I. Baird Construction Co., hiladelphia, Pa., to erect power-house at Government dam No. 19.

FERTILIZER FACTORIES

8. C., Orangeburg.—Orangeburg Fertilizer Co. increased capital stock from \$10,000 to \$90,000 and will enlarge factory; output to be doubled.

Va., Norfolk.-Royster Guano Co. will re-build mill recently burned at loss of about

FLOUR, FEED AND MEAL MILLS

Ky., Frankfort. - Preston Gibson, Scott Brown and Clarence Julian will erect flour

Ky., Milford.—Milford Milling Co. incor-porated with \$5500 capital stock by J. A. Dryden, J. A. Duncan, Bela Ogdon and E. T.

FOUNDRY AND MACHINE PLANTS

Ala., Gadsden—Iron Culverts, etc.—Alabama Metal Products Co. is being organized to erect plant for manufacturing corrugated iron culverts and drains used in road building. Address care Business Men's Club.

Ala., Birmingham — Pipe Works. — United States Cast Iron Pipe & Foundry Co. (recently noted as remodeling Dimmick Pipe Co. plant) is making current repairs only; does not contemplate operation of this plant before July, 1912.

before July, 1912.

Ga., Atlanta—Blowers, etc.—South Atlantic Blow Pipe Co. is reported to be consolidation of following companies: Mobile Blower Co., Mobile, Ala.; Savannah Blow Pipe Co., Savannah, Ga.; Charleston (S. C.) Saet Metal Works; McMillan Bros. of Jacksonville and Pensacola, Fla., and Carleston, S. C.; Standard Blower Co., Montsmery, Ala.; Gulf States Blower Co., Montsmery, Ala.; T. H. McMillan is president; II. J. Hinchey, general manager. (Recently noted organized as "South Atlantic Blow Pipe & Sheet Metal Co." with \$50,000 capital stock, etc.)

g. K. Herbst, W. H. Stueve and Emil T. Georgia Foundry & Machine Co.; will erect Georgia Foundry & Machine Co.; will erect foundry of larger capacity in suburbs; loca-tion not determined; also operate supply store in business section; M. N. Griffin, pres-ident; J. F. DuPree, vice-president; P. B. Harbour, secretary-treasurer; W. H. Fick-ling, manager supply department.

Ga., Trenton—Pumps.—John Kiser, Bir-mingham, Ala., and Dave Kiser, Guild, Tenu. have incorporated a company to manufac-ture pumps; capital stock \$30,000.

Ky., Louisville—Foundry.—Henry Vogt Ma-chine Co. has arranged for material and re-pairs to foundry recently reported damaged by fire; probably under roof within few

Ky., Louisville.-Balke & Co. will not erect

Ky., Louisville.—Balke & Co. will not erect plant recently noted. (Report was incorrect.) Mo., St. Charles — Motor Plows. — H. H. Boenker Motor Plow Manufacturing Co. (previously noted incorporated with \$24,000 capital stock) will manufacture motor plows invented by H. H. Boenker, vice-president; Louis Ringe is president of company; J. C. Willbrand, secretary; H. George Bark-lage treasurer.

Mo., St. Louis.-Tower Grove Foundry Co will erect addition to plant; probable cost

N. C., Asheville—Stoves.—George Bros. (proprietors Enterprise Stove Co.), Bristol, Va.-Tenn., contemplate establishing stove foundry.

Okla., Oklahoma City. — Central Foundry Co. will erect addition to plant; 70x150 feet; rost \$15,000.

S. C., Greenwood — Machinery. — F. J. Milam, Clinton, S. C., contemplates estab-

son, J. T. Holly and others; will develop gas and oll property.

Okla., Muskogee.—Toloka Oil Co. incorporated with \$50,000 capital stock by E. M. Alvord, C. E. Shannon and T. J. Sidener.
Okla., Oklahoma City.— H. B. Houghton

vill drill for oil and gas on farm two miles rom Packingtown; expend about \$30,000.

Okla., Ponca.-City granted gas franchise to E. W. Marland.

Okla., Snyder.—Otter Valley Oil & Gas Co. Incorporated with \$25,000 capital stock by John G. Willis, J. E. Williams and J. W. Wilcox of Snyder, and Carl D. Pryor of Manitou.

Okla., Vinita.—Vinita Oli Distributing Co. incorporated with \$5000 capital stock by John H. Ford, Charles Windham and C. B. Holtzendorf.

Incorporated with \$100,000 capital stock by J. S. Wheless, W. P. McFadden and W. D.

Tex., Fort Worth. — Gulf Refining Co., Frick Bldg. Annex, Pittsburgh, Pa., will build proposed 6-inch branch line from Sal-tillo to Fort Worth. (See "Mis clianeous Factories.")

Tex., Wichita Falls.-Wichita Falls Oil Gas Co. organized with \$15,000 capital stock; leased 3300 acres and will drill for oil and gas; J. D. Avis, president; Louis Solinsky, vice-president; W. F. Weeks, secretary.

W. Va., Burning Springs.—November Oil & Gas Co., Louis Bennett, president, Weston, W. Va., will drill new wells and contemplates installing gasoline plant.

will establish five-ton ice plant and cold-stor ge warehouse: machinery purchased.

Okla., Pauls Valley.—Pauls Valley Ice & Fuel Co. incorporated with \$20,000 capital stock by J. D. Chastain, W. H. Gilkey, Clark Rutherford, J. G. Hays and others.

8. C., Anderson.—Blue Ridge Ice Co. or-ganized with D. C. Brown, president and treasurer; J. E. Barton, vice-president; Wal-ter Dobbins, secretary and manager; will erect fireproof building; 60x36 feet; two sto-ries; cost \$2000; construction by Mr. Barton; cost of machinery \$10,000 to \$12,000; contract placed. (Recently noted incorporated with \$10,000 capital stock.)

S. C., Johnston.—Electric Light, Ice & Fuel Co. incorporated with \$20,000 capital stock by F. M. Boyd and B. S. Boyd.

Tex., Denison.—Denison Crystal Ice Co. will improve ice plant; P. H. Tobia, manager; \$3000 building now under construction.

Tex., Houston.—W. H. Irvin Ice Factory incorporated with \$50,000 capital stock by W. H. Irvin, John Hazard and Robert Terry.

IRON AND STEEL PLANTS

Va., Reusens-Iron Furnace.-Oriskany Ore & Iron Corporation, Buena Vista, Va., will erect previously-noted plant. R. L. Parrish, president, Covington, Va., advises Manufacturers Record that 70 to 80 acres land near Lynchburg have been acquired and 125-ton blast furnace will be erected; construction to begin at once; nodulizing plant (type not decided) will also be installed to nodulize about 100 tons pyrites cinder daily; W. W. Taylor, vice-president and general manager, Clifton Forge, Va., in charge of construction of plant; new furnace to be along line of company's Buena Vista furnace, now in operation.

LAND DEVELOPMENTS

Ala., Shades Mountain (not a postoffice).—Shades Cliff Land Co., G. T. Brazelton, president, 2014 First Ave., Birmingham, Ala., will develop 600 acres on Shades Mountain; contemplates electric railway extension at cost of \$50,000 and taking over four-mile line alor \$50,000 and taking over four-mie line aiready built; also street improvements and water-works; Robert L. Totten, engineer in charge, Birmingham; company recently noted to increase capital stock to \$500,000. (See "Machinery Wanted.")

"Machinery Wanted.")

Ark., Blackton.—Eastern Arkansas Development Co., It is reported, has purchased 2400 acres land and organized company with \$50,000 capital stock to operate seed farm, stock raising, butter and cheese manufacturing, etc.; P. C. Ewan, Clarendon, Ark., and V. A. Hooker and W. M. Bruce to be in charge of dairying and agricultural interests.

Ark., Osceola.—Bellecaire Pianting Co. in-corporated with \$70,000 capital stock; O. R. Lilly, president; August Barthel, vice-presi-dent; George H. Busick, secretary, and F. W. Friers, treasurer.

Ark., Wye.-Southland Vineyard & Orchard Co. incorporated with \$5000 capital stock by James T. Chafin, Willis E. Henderson, Julia Thompson and James E. Barker.

Fla., Jacksonville.—H. B. Finn Realty Co. Incorporated with \$500,000 capital stock by H. R. Finn, Bainbridge Richardson and E. P.

Axtell.

Fla., Orlando.—Gulf Coast Fruit Association awarded contract, it is reported, to L. C. Lowe, architect, Huntington, W. Va., and J. H. Braden, contractor, Fullerton, Ky., for crection of factories and for construction; improvements include 100-mile canal, 100-mile electric rallway, two power-houses and two substations, ice and packing plants, 26 dwellings and several commission-houses; laster ings and several commission houses; latter to be built in various cities, including New Orleans, St. Louis and Cincinnati; company has farm of 80 acres near Orlando, but will enlarge to 400 acres and drain by canal to nstructed.

Fla., Tampa.-Hugh C. Macfarlane and as-Fig., Tampa.—Hugh C. Macfarlane and associates will expend about \$40,000 in improvements to 40-acre subdivision west of Hillsboro River, opposite Cass St.; improvements will include streets, sidewalks, lights and sewer system; David W. Johstone of Macfarlane Investment Co. is in charge of property. property.

Fla., Tampa.—H. Guy Nickerson and asso-ciates will expend about \$40,000 for improve-ment and development of Edgewater Park, comprising about 40 acres.

Ga., Atlanta.—Atlanta Development Co. engaged Charles I. Boyer, Empire Bidg., Atlanta, engineer, to prepare plans and develop 40 acres of land known as Highland View for residential section; improvements include construction of roads, sewers, etc.

Ga., Sumter County.-National Pecan &

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ing medium.

lishment of machine shop; will manufacture automobile gearings and other parts of ma-chinery; Messrs. Gaffney of Greenwood Iron Foundry will erect buildings; investment,

Tenn., Greeneville.-S. L. Williams & Sons will erect foundry and machine shop.

Tenn., Greeneville.—S. L. Williams & Sons

will establish foundry and machine shops.

Tex., Sherman—Bridges.—Western Bridge
Co. incorporated with \$10,000 capital stock W. H. Greer, Bert Hahn, T. H. Dunn and others.

Va., Hampton—Machinery.—Hampton Machine Works incorporated with \$15,000 capital stock; F. D. Cook, president; H. B. Woodfin, secretary; Richard Armstrong, treasurer.

Va., Hampton—Gasoline Engines.—Hampton Machine Works is name of company recently noted to take over plant of Chesapeake Gas Engine Co.; will manufacture and install gasoline engines and conduct building and repairs of small boats and engines; F. D. Cock, president; H. B. Woodfin, secretary; R. Armstrong, treasurer; John Bruckshaw, manager.

GAS AND OIL DEVELOPMENTS

La., New Orleans.—Bellevue Oil Co. incorporated with \$500,000 capital stock; Harold S. Jenson, president; Thomas W. Carey, vice-president, and Walter Winn Wright,

Okla., Grandfield.—Grandfield Oil & Gas Co. incorporated by Roy C. Smith, O. E. Ga., Rome — Mill Supplies, etc.—Georgia Okla., Grandfield.—Grandfield Oii & Gas of plant from 25 to 70 tons ice daily.

Okla., Grandfield.—Grandfield Oii & Gas of plant from 25 to 70 tons ice daily.

N. C., Southport.—H. C. Curtis and Bich.

Capital stock; has taken over property of Maple, Charles E. Lawrence, W. M. Patter.

St. George organized Curtis & St. George;

W. Va., Charleston.—Plum Orchard Oil & Gas Co. Incorporated with \$25,000 capital stock by J. W. Alexander, Isaac Chancey, L. Schwartz and others; will drill for oil in Ripley district, Jackson county.

W. Va., Enon.-Enon Oil & Gas Co. applied for franchise to construct oil and gas mains in Nicholas county.

W. Va., Tyler County.-American Gosol Co. W. va., Tyler County.—American dossit of the Pittsburgh, Pa., incorporated with \$200,000 capital stock by C. L. Kerr, O. D. Robinson, E. D. Robinson and others to produce petro-

ICE AND COLD-STORAGE PLANTS

Ala., Birmingham.—Hyglenic Ice & Cold-Storage Co. will erect ice and cold-storage plant; brick building; ice-rooms to be of brick, with cork board insulation and cement interiors; capacity of ice plant, 100 tons; storage capacity, 1000 tons; contract for equipment awarded; plans for building

Ala., Samson.—D. C. Carmichael and Mr. Nance of Dothan, Ala., will establish ice plant; construction begun.

Fla., Orlando.—Gulf Coast Fruit Associa-tion will, it is reported, erect ice plant; awarded contract to L. C. Lowe, architect, Huntington, W. Va., and J. H. Braden, con-tractor, Huntington, W. Va. (See "Land Developments.")

N. C., Elizabeth City.—Crystal Ice Co. will erect brick building and increase capacity of plant from 35 to 70 tons ice daily.

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Orange Grove Co., 508 Bond Bldg., Washington, D. C., will buy part or all of farm on Flint River from Stackhouse Land Co., Cobb, Ga.; proposes to divide land into fiveacre tracts and develop budded pecan trees and satsuma orange groves; the Stackhouse Company to cultivate and fertilize groves ompany for seven years.

Ky., Silver Grove (not a postoffice).— Thesapeake & Ohio Railway, F. I. Cabell, chief engineer, Richmond, Va., incorporated Silver Grove Land & Building Co. with \$100, 000 capital stock to be in active charge of developing new town at Silver Grove, near Newport; G. B. Wall of Richmond, assistant to president, and Maurice Galvin of Coving-Ky., are included.) are included in incorporators

La., Barataria.-Oscar D. Weed, 160 Bros way, New York (recently noted to have pur-chased 10,000 acres of land on Bayou Rigolets, in vicinity of Barataria), contemplates velop same; plans not complete.

La., New Orleans,-Jefferson Land Co. purchased Ames plantation in Jefferson parish, comprising 8800 acres, of which 3000 acres are in cultivation and balance in tumber and wet lands; frontage of about 30 arpents on Mississippi River; sugar mill of 600 tons ca-pacity is located on property; reported pur-chase price \$400,000; purchasers contemplate expending about \$100,000 in development, to include truck farms, pecan orchards, reclamation of marsh lands, etc.; including this property, Jefferson Land Co. will control about 16,000 acres in one tract; William A. Benton, Amesville, La., is superintendent.

La., New Orleans.-City acquired 20 acres of land and will improve as park; W. J. Hardee, City Engineer.

Baltimore.-Roland Park Co (Edward H. Bouton, president), 408 Roland and Guilford Park Company (William Grafflin, president), 309 Vickers Bldg. plied to Public Service Commission fo authority to consolidate as Roland Park Company; will issue \$450,000 preferred cumustock and \$1,500,000 of co plans development of Guilford Park.

Md., Berlin.-Swan Creek Orchard Co. (Orlando Harrison and others) will clear some additional land. (Recently noted incorporated with \$100,000 capital stock. chinery Wanted.")

Md., Chevy Chase.-Chevy Chase to Great Falls Land Corporation, H. Bradley Davidson, president, Hendricks Bldg., Washington, D. C., contemplates expenditure of \$300,000 for construction and equipment of car line and building boulevard on either side: in addiwill expend several hundred thousand ars on developments to property. (Re cently noted.)

N. C., Tryon.-Hoke-Hill Real Estate & In-N. C., Tryon.—Hoke-Hill Real Estate & Investment Co., D. M. Hoke, president, Greenville, S. C., purchased 300 acres of land and has option on 5000 acres near Tryon; will develop for residential, industrial and agricultural purposes; cultivate grapes and apples; creet cottages; also construct hydro-electric plant for light and power; has engi-neers, William Farr, Asheville, N. C., and F. G. Rogers, Greenville, S. C., Investigating water-powers; W. B. Hellen of Tryon is secretary-treasurer. (Recently noted to develop

S. C., Charleston,-Coastal Development Co. incorporated with \$25,000 capital stock; H. M. Sanders, president; E. C. McCarty, vice-president; A. H. Latimer, secretarytreasurer.

Tenn., Dyersburg.-Richardson Land & Im provement Co. will develop 87 acres of land in western section of city; 20 acres to be subdivided for building purposes; L. C. Fum-banks, president; R. Rawles, vice-president; E. E. Rucker, secretary-treasurer. (Recently reported incorporated with \$25,000 capital stock.)

Donna. - Monarch Plantation Co. Tex., Glbbs Bldg., San Antonio, Tex., will develop 1000 acres of land for farming; 1500 acres to be developed by settlers; land under irrigation; cost of improvements, \$100,000; bids opened for construction November 1; G. B. McManamon, president; L. A. Smartt, treasurer; W. L. Cory, secretary; development in charge of Mr. Smartt. (Recently noted incorporated with \$10,000 capital stock.)

Va., Stuart.-Shelton Orchard Co. (recent Va., Stuart.—Saetton Orenard Co. (recent-ly reported incorporated with \$30,000 capital stock) will develop 400 acres in apple or-chards; H. E. Van Deman, president, 3630 13th St. N. W., Washington, D. C.; H. C. Wyser, vice-president and general manager; J. C. Shockley, secretary-treasurer,

000: will improve orchards and buildings at cost of \$55,000; develop 600 acres in Albe-marle and Augusta counties; W. J. Phillips, president; Charles G. Maphis, vice-presi-dent; J. P. Neff, secretary-treasurer; J. L. Phillips, manager.

LUMBER MANUFACTURING

Ala., Chelsea. — Stapp-Bass Lumber Co. incorporated with \$10,000 capital stock; J. W. Stapp. president, Talladega, Ala.; J. J. Elliott, vice-president, and A. J. Bass, secretary and treasurer, Birmingha

Ala., Falkville.-H. H. Hitt Lumber Co. in corporated with \$50,000 capital stock.

Ga., Savannah.-Schut-Kiehn Company inrated by John W. Alleyn, Oscar Brandt

Ga., Sayannah.-Schut & Kiehn Company incorporated with \$10,000 capital stock John W. Alleyn, Oscar Brandt and others

Ga Sylvania O C Everett will rebuild planing mill recently reported burned; 6 feet; also boiler and engine house; will ceive bids at once for machinery. (See "Machinery Wanted.")

Ky., Louisville.—Chess & Wymond Com-pany increased capital stock from \$1,000,000 to \$1,750,000 to provide for purchase of tim-ber land in Mississippi and Louisiana.

Miss., Gulfport .- S. E. Naylor Company in corporated with \$50,000 capital stock by S. E. Naylor, William West and J. A. Leathers. (Mr. Navlor recently stated to have Chased interests of former partner in S. E. Naylor & Co., Durham Bldg., and to con-tinue manufacture of pitch pine lumber and timber, hardwood and box shooks,)

Miss Jefferson County-Chess & Wymond pany, Louisville, Ky., states recent re-of purchase of timber land in Jefferson ounty was incorrect.

Mo., Garden City. - Farm Supply Co. incorporated with \$10,000 capital stock by A. J. Hagden, J. E. Schertz and D. H. Kirk

Mo., St. Louis,-Morriss Lumber Co. incor orated with \$50,000 capital stock by R. M. Iorriss, St. Louis; J. O. Nessen and George . Green, Chicago, Ill.; has mills at Clio and Kearney, Ark., and Bastrop, La.

N. C., Asheville, - Scott-Lambert Lumber Co. purchased hardwood timber land at will erect mill of 50,000 feet daily capacity.

N. C., Ellerbe.-Watkins Lumber Co. incor porated with \$50,000 capital stock by Watkins, Sr., E. C. Watkins, W. H. Watk Jr., and R. L. Thomas.

N. C., Ewart.—R. J. McMackin, Johnson City, Tenn., purchased timber land and will install sawmill.

Lenoir.-Grandin Lumb orsted with \$1,950,000 capital stock by G. Grandin, Edmund Jones, O. P. Lutz and Edund Jones, Jr.

N. C., Mount Mitchell.—8. Montgomery Smith, Asheville, N. C., purchased 22,000 acres of hardwood timber.

S. C., Florence.—Munn Lumber Co. incorporated with \$5000 capital stock; D. H. Munn, president and treasurer; J. F. McBride, vicepresident, secretary and general manager.

Tex., Saratoga.—Cheek & Neyman Lumber Co. incorporated with \$49,000 capital stock by John R. Cheek, William Heyman and W. F. Lampe

Va., Dillwyn.-George A. Rice will establish planing mili, hardwood and excelsior plant information furnished by Dillwyn Realty Co

Va., Dragonville. - Perry-Bradley Lumber Va., Dragonville.—Perry-Bradley Lumber Co. incorporated with \$25,000 capital stock; Vandalla Perry, president; Frank A. Perry, vice-president; Lynn Perry, secretary, of Salisbury, Md., and George O. Bradley, treasurer, Dragonville.

W. Va., Cass.—Range Lumber Co. Incorporated by George G. Stitzinger, Arthur E. Stitzinger and William H. Gillespie; purchased Deer Creek Lumber Co.'s plant near Cass and will operate.

W. Va., Charleston.-Recent notice of inorporation of Charleston Lumber Co. at Charleston, W. Va.," is incorrect. The Charleston Lumber Co." already in opera-

W. Va., Proctor.—Thomas Gatts of Gatts & rey, Moundsville, W. Va., purchased about 100 acres of timber land and will develop.

METAL-WORKING PLANTS

Fla., Jacksonville—Culverts, etc.—Florida Metal Products Co. will be organized to build plant; has plans and specifications for build-Va., Staunton.—Old Dominion Orchard Co. ings; metal construction. Address care increased capital stock from \$100,000 to \$175,-

MINING

Ala., St. Clair County-Iron, etc.-Coo Alla, St. Clair County-Iron, etc.—Coosa Valley Company, recently noted organized with capitalization of \$2,000,000 to develop 2000 acres mineral lands in Coosa Valley, elected Dr. E. J. Spratling, Atlanta, presi-dent; D. B. Hamilton, Jr., Rome, Ga., first dent; D. B. Hamilton, Jr., Røme, Ga., Irsa vice-president; Thomas Berry of Rome, Ga., second vice-president; W. W. Reid, Atlanta, secretary-treasurer; will organize subsidiary companies to develop iron ore, shale, lime-sione and Portland cement deposits, Mitchell Mountain Iron Ore Co. (recently noted in orated) is one of subsidiary

Fla., Tarpon Springs-Silica.-Triton Silica. Mining & Manufacturing Co., Dr. E. W. Rettegi, president, purchased land from Tampa & Tarpon Springs Land Co.; also has option on 120 acres adjoining; will develop silica; has begun erection of building and laying of side-tracks for shipping purwill develop 270 acres; daily output 1000 to 1500 tons; opens bids on mining ma-chinery January 1; will install auger wash-ers, screens, dryers and automatic elevators at cost estimated within \$6000; Anton Brany at cost estimated within \$9000!, Anton Brany is vice-president and manager; Joseph Bec-sey, secretary; Louis Nagg, treasurer. Com-pany's sole agent is North American Selling Co., '120 Liberty St., New York; recently noted. (See "Clayworking Plants" and 'Machinery Wanted.")

Md., Cockeysville - Marble. -Marble Co., Hugh Sisson, president, 704 Con-stitution St., Baltimore, Md., leased marble quarries near Cockeysville and will continue development.

Mo., Joplin.-Richmore Mining Co porated with \$42,000 capital stock by Harry C. Neff, H. W. Hazell and Charles McDonald.

Mo., Joplin-Lead and Zinc.-New Dividend Mining Co. organized by Frank Watkins, Box 305, and others, has leased 17 acres of lead and zinc property and will develop; has mill on property; daily capacity 15 tons of ore; machinery includes concentrating machinery and pumps.

Mo., Sarcoxie.-W. G. Holt and William Buchan, Kansas City, Kans., purchased Lone Pilgrim mine at \$8000 and will erect concenrating plant.

Mo., Oronoga.-Yellow Dog Mining Co. will rebuild concentrating plant recently reburned; capacity 300 to 500 tons; burned; capacity 300 t Coats is superintendent.

Okla., Miami.-Tar Creek Mining Co. inc okia., Miami.—Tar Creek Mining Co. incorporated with \$15,000 capital stock by W. A. Wagoner of Miami, W. P. Walton and Burt W. Lyon of Joplin, Mo.

Okla., Oklahoma City-Printing.-Southern Stamp & Printing Co. incorporated with \$5000 capital stock by P. J. Hodgins, E. E. and Mayme Hodgins.

Okla., Tulsa-Stone.-Standard Stone (incorporated with \$2000 capital stock by I. Gray, J. P. Greer and Ralsa F. Morley.

S. C., Gaffney-Gold.-L. U. Campb reopen Flint Hill gold mine and erect 40-ton mining plant; machinery purchased.

Tex., Rockland-Rock.-C. A. Logan, H. G. Brown and L. D. Dawson, all of Beaumont, Tex., purchased Darrough Bros.' quarry and oganized Rockland Quarrying Co.; will install crusher and double output.

Va., Norfolk.—Eagleston-Parke incorpora ted with \$50,000 capital stock; U. G. Eagle ston (of Jameson, McKenzie & Evans, 403-407 E. Center St.), president; George J. Parke, vice-president; both of Baltimore, Md.; W. Gordon, secretary-treasurer, Norfolk.

MISCELLANEOUS CONSTRUCTION

Ark., Garland-Levee.-Miller County Levee District No. 2 awarded contract to Brothers & Co. and R. L. Leonard of Memphis, Tenn., at 15.30 cents per cubic yard for pans, reals, at 13.30 eries per cubic yard to 1,840,000 cubic yards of levee, and at 15 cents per cubic yard for 175,000 cubic yards of ditch; to be constructed entirely with teams and scrapers; construction to be completed by March 1; Morgan Engineering Co., Mem-phis, Tenn., engineers in charge. (Recently noted.)

Ark., Roland Raft (not a postoffice)— Lock and Dam.—G. C. Hodgson, Dayton, O., is lowest bidder at \$248,142,70 for furnishing and placing lock gates and building dam No. 6, Ouachita River, near Roland Raft; bids were opened October 31 at U. S. Engineer office, Vicksburg, Miss.

Pensacola - Dredging. warded contract to North American Dredg Ing Co., San Francisco, Cal., to dredge about 330,000 square yards of sand to be pumped back of seawalls at Forts Pickens and Mc-Rae; cost about \$90,000.

Fla., West Palm Beach-Dock .- H. C. Quinn (recently noted representing Champion Bridge Co. of Wilmington, O., in preparing plans for \$8000 municipal dock) states de will probably not be further consider bonds are legalized.

Ga., Waycross-Canal. - Government eng neers are making surveys of Satilla Rive preparatory to construction of propose barge canal from Waycross to the Atlantic proposed to cut through some of large of river and by dredging secure direct water route to the ocean; William G. Brantler, Congressman, Brunswick, Ga., is interested and secured Government appropriation

La., New Orleans,-Board of Comm Port of New Orleans, Suite 200 New Orleans Court Bidg., will receive bids until December for covering and enclosing Press St. shed furnishing and delivering sheathing nailing strips; furnishing labor for and painting nailing strips and sheathing furnishing, placing and painting corrugated iron siding and sheet-metal work; furnish ing and placing composition roof: bidd ing and placing composition roof; bidders to specify on outside of envelope character of work on which bid is submitted; deposit \$200; plans and specifications on file with A. C. Bell, engineer, Suite 200 New Orlean Court Bidg., by whom full sets will be furnished on deposit of \$10; William A. Kernaghan, president of board.

La., New Orleans—Wharf.—Dock Board, W. A. Kernagen, president, contemplates creet-ing wharf at Elmer Dempster Landing for mooring small boats.

Rich Hill-Levee.-W. T. Duvall' But ler, Mo., will construct two miles of levee from three to six feet high along Marais des ygnes River.

Tex., Clarksville-Dam,-Red River try Club awarded contract to John Ward \$7500 to construct dam to contain 100 acres

Tex., Galveston - Causeway. -Board of Engineers, Linton W. Stubbs, su-pervising engineer, decided to protect with concrete piling 1000 feet of unprotected fill on island end of causeway; A. M. Bodgett Construction Co. of Kansas City, Mo., was Instructed to proceed with their plans for instructed to proceed wi construction; additional work will be a form of supplemental contract and cost about \$38,597. G. E. Mann, County Judge, is chairman of causeway committee

Tex., Houston-Ship Channel.-Maj. Earl J. Brown, United States Engineer, Galveston, Tex., forwarded to Washington specifi , forwarded to Washingtor Houston cations for Houston ship channel; improve-ment will consist of dredging about 20,000,000 cubic yards; channel to have uniform depth of 25 feet and bottom width of 150 Buffalo Bayou; city voted \$1,250,000 bond issue and Government appropriated \$1,250,000 additional, making total of \$2,500,000 avail-(Previously mentioned.

Virginia-Concrete Tunnel Lining.-Virgin lan Railway, H. Fernstrom, chief engineer. Norfolk, Va., awarded contract to W. W. Boxley & Co., Roanoke, Va., to line 18 tunrels with reinforced concrete; tunnels in Virginia and West Virginia; approximate cost, between \$800,000 and \$1,000,000; engineer in charge, A. M. Traugott, Glen Lyn, va.: work to be commenced at once and completed in four years; will require two or three plants; standard-gauge equipment. (See "Machinery Wanted.")

West Virginia-Tunnel Lining.-Virginian Railway, H. Fernstrom, chief engineer, Norfolk, Va., awarded contract to W. W. Boxley & Co., Roanoke, Va., to line tunnels in West Virginia with reinforced concrete. (See Vir-

MISCELLANEOUS ENTERPRISES

Ala., Montgomery-Cigars, etc.-Southern Cigar & Soda Co. incorporated with \$10,00 capital stock by E. W. Clapp, P. A. Davis and Hugh D. Jolly.

D. C., Washington-Bureau of Printing and Engraving.—J. Henry Miller, Inc., 166 Dover St., Baltimore, Md., has contract at 11-169,447 to erect building for Bureau of Date. graving and Printing; James Knox Taylor, supervising architect, Treasury Department, Washington, D. C. (See "Government and "Government and State" under Building News.)

Ky., Louisville - Seed. - Edwin president and treasurer Southern Seed Co of Louisville, with branches at Indianapolis. Ind., and St. Louis, Mo., states Hall Seed Co., capitalized at \$50,000, was incorporated to take over retail department at Louisville, of which W. P. Hall has been manager. (Reently noted.)

Ky., Louisville-Electrical Machine Short Marine Electric Co. incorporated with \$600 capital stock by C. E. Thirwell, H. A. Tepel and C. G. Thirwell.

La., New Orleans-Book Bindery .-& Jones will erect 70-foot addition to building to be equipped as book bindery, etc.

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Brantley, Interested tion,

Mo., Kansas City—Lubricating Supplies.— American Lubrication & Supply Co. Incor-porated with \$10,000 capital stock by Florence M. Cook, Louis E. Baker and Cynthia E. Mo., Kansas City - Construction. - Stern berg-Lund Construction Co. incorporated with \$15,000 capital stock by N. J. Sternberg, S. Lund and N. R. Clark.

Md., Baltimore — Paper, — Richards Paper Co. incorporated with \$10,000 capital stock by James R. Richards, Jr., Duquesne Apart-ments; Walter D. Wiley, Jr., and Byron W.

Md., Baltimore—Contracting.—F. W. Gar-retson, Jr., incorporated with \$5000 capital stock by Franklin W. Garrettson, Jr., Mac-Donald Garrettson and Ellen E. Garrettson, all of 936 Harlem Ave.

Mo., St. Louis—Loggers' Supplies.—Broder-lek & Bascom Loggers' Supply Co. incorpo-rated with \$50,000 capital stock by John J. Broderick, Joseph D. Bascom, Chas. E. Bas-com, John K. Broderick and others.

Mo., St. Louis - Chemicals. - Maldehyde chemical Co. incorporated with \$30,000 capital slock by J. A. Weipert, Philip Bardenheier, Lionel Davis and others,

N. C., Wilmington—Marine Railway.—Cape Fear Marine Railway Co. incorporated with 100,00) capital stock by G. W. Worth, James Sprunt, L. H. Skinner, J. S. Williams, H. C. McQueen and others to establish marine rail-McQueen and others to establish marine rail-way and machine shops; acquired site of Skinner marine railways and adjoining property; railway will have 1000 tons capac-ity; wharves and shops about 600 feet long; Cape Fear Machine Works will be merged with new company and will remove its equip-ment to new location.

ment to new location.

Okla., Oklahoma City—Advertising.—Provident Publicity Co. Incorporated with \$25,000 capital stock by S. T. Goltry, Fred C. Hutson and I. Mantz of Enid, Okla.; I. P. Mantz and Walter L. Hurd of Oklahoma City.

Tenn., Nashville—Laundry.—White Cloud Laundry Co. Incorporated with \$10,000 capital stock by E. N. Cullom, C. H. Polston, M. R. Moody, La A. Wright and C. S. Moore.

Tex., Corsicana-Printing,—Observer Printing Co. incorporated with \$10,000 capital stock; A. N. Justiss, president; R. E. Price, vice-president; James Garitty, treasurer; John R. Mays, secretary.

Tex., Stamford—Park.—City of Stamford, Chas. Brewington, Mayor, contemplates park development of 90 acres surrounding Univer-sity Lake; one-half mile from Stamford; will make driveways, plant trees, etc.; cost

W. Va., Wheeling-Laundry,-Crystal Laun dry & Towel Supply Co. Incorporated with \$10,000 capital stock by Charles Klein, Lewis Steenrod, Charles Nabov and others.

MISCELLANEOUS FACTORIES

Ala., Conl City—Chemical Products.—Alabama Chemical Products Co. incorporated with \$250,000 capital stock by Dr. E. J. Spratling and W. W. Reid, Empire Life Bidg., Atlanta, Ga., and Harper and D. B. Hamilton, Lewis R. Smith and Thomas R. Berry of Rome, Ga.; subsidiary to Coosa Valley Co., recently reported to develop iron deposits.

Fla., Key West-Gas.-Starr & Reed pur-chased site 139x290 feet on which to build proposed gas plant.

Fla., Palmetto—Syrup.—J. H. Riviere of Palmetto and Louis Sencknecht of Knoxville, Tenn., purchased 400 acres of land and will develop as sugar-cane plantation; 150 acres to be planted next season; install plant to manufacture cane syrup.

Fla., Tarpon Springs—Sacks.—Triton Silica Mining & Manufacturing Co. pians o estab-lish sack factory. (See "Mining.") Fla., Tarpon Springs—Glass and Porcelain.

Triton Silica Mining & Manufacturing Co. is reported as to increase capital stock to \$500,000 and build glass and porcelain works. (See "Mining.")

Ga., Augusta-Tires.-Southern Tire & Rubber Co. incorporated with \$125,000 capital stock by W. A. Smith, J. P. Armstrong and H. Stemer Dunbar.

Ga., Brunswick-Cigars.-Brunswick Smoker porated by J. Prim, L. Artau and Fred Pfeiffer.

Ga., Lafayette-Rock Crushing and Lime. Ga., Lafayette—Rock Crushing and Lime.— Horine Development Co. contemplates estab-lishment of rock-crushing and lime plant. E. M. Horine, Atlanta, Ga., wires Manufac-turers Record: "Committee from our direct-ors has matter in charge for investigation." (See "Concrete and Cement Plants.")

extract, tobacco powder for fertilizer, etc.; C. F. Gloystein of Henderson, Ky., is general manager.

Kv., Lexington-Sausage,-J. C. Morris will erect lard and sausage factory.

I.a., Abbeville-Sugar.-I. A. Moresi, Jean-erette, I.a.; O. J. Chauvin, J. E. Nettles, A. J. Godard and C. C. Broussard, all of Abbeville, are promoting establishment of sugar mill

La., Bogalusa — Turpentine. — Pools Bluff Turpentine Co., J. J. Waller, vice-president, purchased 715 acres timber land and will extract turpentine.

tract turpentine.

La., DeQuincy—Turpentine.—Texas Pine Tar
Co. will erect 60x120-foot fireproof main
building; install three retorts, two stills, engine, boiler and hog at cost of about \$12,000;
use about 20 cords wood daily; H. A. Stone,
president, Box 882, Beaumont, Tex. (Recently noted to install plant to manufacture
resinous products from cut-over stumpage.)

La., New Orleans-Marble Works.-Victor Huber Marble & Granite Co. will erect addi-tion to marble works.

La., New Orleans—Nut Locks.—Allens Nut Lock Co. Incorporated with \$300,000 capital stock; Oglesby Allen, Jr., president; Joseph G. Allen, vice-presiden; Francis Allen, secetary-treasurer.

Md., Baltimore—Ice Cream and Fruit Products.—Maryland Ice Cream & Fruit Products Co. Incorporated with \$150,000 capi-tal stock by James C. Leib (210 Light St.), Louis W. Davis (4-6 E. Camden St.) and Daniel O'Reardon.

Md., Baltimore-Corn Starch and Baking No., Battimore—Corn Staten and Basing Powder.—T. G. Pritchard Company, 2723 W. North Ave., awarded contract to Walter E. Burnham, 403-404 Law Bidg., Baltimore, to erect corn-starch and baking-powder fac-tory; fireproof construction; five stories; all ntracts placed.

Md., Baltimore—Cigars.—Elliott, Ottenhelmer & Elliott, 109 W. Lombard St., will erect cigar factory at 2113-2117 E. Oliver St.; building will be three stories; pressed brick, with stone trimmings; concrete foundation; slag roof; fireproof; plans will be prepared by Robert C. Ulirich, 72 Gunther Bidg., Baltimore, and Louis Levi of Philadelphia, Pa.

Md., Baltimore-Exhaust Fans and Dustcollecting Systems.—Dixie Manufacturing
Co., Russell and Stockholm Sts., awarded
contract to Consolidated Engineering Co.,
101 Emerson Bldg., Baltimore, to erect onestory addition to plant.

story addition to plant.

Md., Baltimore—Candy.—Mt. Vernon Chocolate Co. incorporated with \$5000 capital stock by Walter P. Hayes (101 Elisroad Ave.), Charles Jackson (813 Pennsylvania Ave.), both of Baltimore, and Charles G. Erdman, Rosekemp Ave., Lauraville, Md.

Miss., Yazoo City-Boll-weevil Extermina-tor.—Boll-weevil Exterminator Co. incorpo-rated with \$50,000 capital stock by W. F. Shoeneman and H. M. Ehrman, Yazoo City, and Jake Ehrman, Jackson, Miss.; will man-ufacture appliance for exterminating boll-weeville. weevils.

Mo., Kansas City-Candy.-Dempsey Candy Co. incorporated with \$15,000 capital stock by Senterlow Dempsey, Frank A. Whitmeyer and Albert L. Dempsey.

Mo., Kirksville—Gas.—Kirksville Gas, Heat & Electric Co. increased capital stock from \$50,000 to \$100,000.

Mo., Missouri City—Distilling.—F. M.

Hutchison Distilling Co, incorporated with \$10,000 capital stock by F. M. Hutchison, Geo. W. Blessing and Glover Branch.

Mo., St. Louis-Shoes.-Roberts, Johnson & Rand Shoe Co. and Peters Shoe Co. (reported in August to consolidate with \$20,000,000 ed in August to consolidate with \$20,000,000 capital stock) decided upon \$1,000,000 increase in capital stock, making total capitalization \$21,000,000; new company will combine 20 factories in St. Louis and vicinity; Jackson Johnson (president of Roberts, Johnson & Rand Shoe Co.) has been chosen president and Henry Peters (president Peters Shoe Co.) vice-president.

Mo., St. Louis-Electrical Supplies.-Wag-ner Electric Manufacturing Co. awarded contract to W. F. Sutherland Construction & Building Co. to erect addition to factory :

Mo., St. Louis—Barbers' Supplies.—Koken Barber Supply Co. has plans by William A. Lucas of St. Louis for factory and office building; six stories; 145x110 feet; reinforced concrete or mill construction; cost about \$200,000; bids opened November 20. (Recently mentioned.) ly mentioned.)

ors has matter in charge for investigation."
(See "Concrete and Cement Plants.")

Ky., Henderson-Nicotine, etc.—American Nicotine Co. incorporated with \$200,000 capital stock to manufacture aeroplanes;

Kepel, president; Robert F. Charlotte, Mich., will, it is reported, established to manufacture nicotine, tobacco (Keppel, vice-president, both of Indianapolis, lish paint and cement factory.

Ind.: Joseph Van Raalte, treasurer, St. Louis. N. C., Lumberton — Bottling. — Lumberton Coca-Cola Bottling Works incorporated with \$5000 capital stock by C. D. Hutaff and

others

N. C., Wilmington-Shirts.-M. A. Smith, Washington, N. C., will enlarge shirt fac-tory operated in connection with Willard Bag & Manufacturing Co.

Okla., Oklahoma Cty — Candy. — Lberty Candy Co. ncorporated wth \$2500 captal stock by Jake Mtchell, Asher Rosenweg and Sam

Okla., Wagoner—Gas.—Wagoner Electric & Gas Co. incorporated with \$1590 capital stock by H. K. Herbst, W. H. Stueve and Emil T. Gunther.

Tenn., Memphis—Mausoleums. — Tennessee Mausoleum Co. Incorporated with \$50,000 capital stock by H. P. Johnson, W. A. Bick-ford, C. F. Mohr and others.

Tenn., Memphis—Ice-cream.—Blue Seal Ice-cream Co. increased capital stock from \$5000

Tenn., Nashville—Springs and Mattresses.— Nashville Spring & Mattress Co. incorpora-ted with \$50,000 capital stock by L. R. Jacobs, H. C. Jacobs, W. F. Jacobs, Harry S. Stokes and Luther W. Jacobs.

Tex., Corpus Christi-Paper Bottles .- C. S. Karely, Portland, Tex., is promoting organ-ization of company with \$45,000 capital stock to establish plant for manufacturing paper hottles.

Payne-Parsley Machine & Manufacturing Co. will rebuild burned factory.

Tex., Dallas—Co---

Royston, Tex., contemplates increasing capital stock to \$50,000; erect fireproof building; cost \$25,000; will let contract by spring; install lathe, cutting machine, etc.; D. L. Dodgen, president; T. E. Hoffman, secretary; recently noted incorporated with \$3000 capital states of the secretary of the secretary. (See "Machinery Wanted.")

Tex., Decatur—Food.—National Food Co. Incorporated with \$25,000 capital stock by S. A. Lillard, D. H. Payne and W. E. Ter-

Tex., Fort Worth - Oil Refining. Nutty, general sales manager Gulf Refining Co., Frick Building Annex, Pittsburgh, Pa. advises Manufacturers Record that com pany has completed proposed plans; will build six-inch branch line from trunk line at Saltillo to Fort Worth, where site has been purchased for refinery to be erected immediately.

Tex., Greenville—Saratoga Chips.—George Wilson, Hillsboro, Tex., contemplates erecting Saratoga chip factory.

Tex., Waxahachie—Gas.—William T. Utley,

F. E. Turnell, R. G. St. John, H. L. St. John and H. M. Wallace, all of Detroit, Mich., and others are considering erection of gas plant.

Tex., Wichita Falls—Strap Fastener.— Carlson Strap Fastener Co. incorporated with \$10,000 capital stock by F. A. Carlson, L. D. Rhodes, E. G. Cook and others.

Va., Alexandria-Kodak Films.-Washington Film Exchange incorporated with \$5000 capital stock; M. L. Miles, president, New York city; Arthur Lucas, vice-president; Joseph L. Marentette, secretary, both of Washington, D. C.

Va., Dillwyn-Creamery.-James S. Steele will establish creamery; information fur-nished by Dillwyn Realty Co. of Dillwyn.

Va., Richmond—Olls, etc.—Gunn Disinfecting & Oll Corporation incorporated with \$50,000 capital stock; F. V. Gunn, president and treasurer; R. W. Fowler, vice-president; W. L. Fitch, secretary.

Va., Richmond — Gas.—City appropriated \$3000 for extension of gas mains; Charles E. Bolling, City Engineer.

Va., Richmond — Baking Powder. — Boyd Baking Powder Co. incorporated with \$15,000 capital stock; W. C. Boyd, president; E. A. Moseley, vice-president; W. E. Hazelgrove, secretary-treasurer and manager.

Va., Richmond — Ticket Cutter. — Hargis Ticket Cutter Co., H. W. Hargis, Raieigh, N. C., president, is placing with railway companies a patent ticket and cutter; now having these made to örder; contemplates establishment of factory later. (Recently reported incorporated with \$50,000 capital stock). stock.)

Va., Richmond — Badges and Buttons.—
Badges and Buttons incorporated with \$15,000
capital stock; F. V. Levy, president; S. S.
Rosendorf, vice-president; Edwin L. Levy,
secretary and tressurer.

Va., Lynchburg-Nut Locks.—The Hughes Nut Lock Corporation incorporated with \$25,000 capital stock; R. D. Hughes, presi-dent; Charles P. Patteson, vice-president; A. T. Henderson, secretary and treasurer.

A. T. Henderson, secretary and treasurer.

W. Va., Cairo — Gasoline. — International
Petrol Co. organized by J. C. McDowell,
president Dominion Natural Gas Co., Pittsburg, Pa.; Joseph M. Cudahy, vice-president
Cudahy Packing Co., Chicago, Ill.; H. F.
Yoakum of St. Louis & San Francisco Railroad, 71 Broadway, New York, and others to
manufacture from crude petroleum gasoline
and other similar products; first refinery is
being erected at Cairo; additional plants
will probably be built in various other cities.

MOTORS AND GARAGES

D. C., Washington.—F. H. Wurzbacher, 404 5th St. N. E., has plans by E. O. Volland for residence and garage. (See "Dwellings.")

Ga., Atlanta.—Henry H. Schaul is having plans prepared by W. T. Downing, Atlanta, for building for Buick Motor Car Co.; 50x150 feet; 150,000 square feet floor space; five stories; reinforced concrete; cost \$50,000.

Ky., Louisville.-Transit Motor Car Co. in corporated with \$20,000 capital stock by E. C. Walker, George H. Laib and W. B. Young.

La., Plaquemine.—Plaquemine Motor Car Co., Ltd., incorporated with \$10,000 capital stock; W. A. Holloway, president; Henry Nadler, vice-president; E. B. Schwing, secretary-treasurer.

Mo., Kansas City.—Thomas Swearingen, 4415 Forest Ave., will erect garage at 4727 Troost Ave.; two stories and basement; 40x 120 feet; brick and concrete; fireproof; will have garage on first floor, machine shop in basement; hall above.

Mo., St. Joseph.—Grassfield Automobile Co. Incorporated with \$2000 capital stock by E. A. Grassfield, Geo. Vetuske and F. E. Frank.

N. C., Salisbury.—W. T. Rainey, agent for Murphy beirs, awarded contract to erect garage; 75x80 feet.

Tex., Dallas. — Oldsmobile Company of Texas incorporated with \$10,000 capital stock by Clinton Clark, Rhode S. Baker and Wen-del Spence.

Tex., Houston.—G. W. Hawkins awarded contract to erect office and garage building. (See "Bank and Offices.")

Tex., Victoria.—Texas Motor Car & Supply Co. awarded contract to Balley Mills Co., Victoria, to erect addition to machine shop; two stories; 30x80 feet; sheet-metal cor struction; cost \$3000.

Va., Richmond.-Broad Street Garage in corporated with \$5000 capital stock; A. Zachary, president; O. B. White, vice-president; C. Stokes, secretary.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ga., Savannah.—Seaboard Air Line Railway, W. L. Seddon, chief engineer, Portsmouth, Va., awarded contract, it is reported, to Fairbanks-Morse Company, Chicago, Ill., to rebuild roundhouse and repair shops; brick; fireproof; total cost \$150,000 to \$175,000. (Previously mentioned.)

Okla., Westville. — Kansas City Southern Railway Co., C. E. Johnston, chief engineer, Kansas City, Mo., has not decided to erect terminals, roundhouse and machine shops

ROAD AND STREET WORK

Ala., Anniston.—Calhoun County Commissioners awarded contract to Goodrich & Crinkley, Harriman, Tenn., to construct road from Cane Creek to Jacksonville.

Ala., Anniston.-Calhoun County Comp sioners will construct road from Anniston to Alexandria

Ala., Carrollton.-L. C. Hudgins, Judge of Probate Court of Pickens County, states plans for constructing road from Carrollton to Pickensville have not been decided; ma-

to Pickensville have not been decided; material not determined; contemplate construction in early spring. (Recently noted.)

Aln., Dadeville.—Tallapoosa county will construct 11 miles of road from Dadeville to Miller's Bridge; cost \$8000 to \$10,000; James R. Hall of Dadeville is engineer in charge. (Recently mentioned. See "Machinery Wanted.")

Ala., Hamilton.-Marion county will grade, Ala, Hamilton.—Marion county will grade, drain and surface with gravel about 2½ miles of State-aid road; bids received until December 21; bids will be received at same time for continuing road 11 miles farther; W. S. Keller, State Highway Engineer. (See "Machinery Wanted.")

Ala., Mobile. — Mobile County Board of Revenue and Road Commissioners will issue

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\$150,000 of \$500,000 bond issue previously authorized for road construction

Ala., New Decatur.—City awarded contract to W. M. Leftwich & Co., Nashville, Tenn., at \$5200 to construct sidewalks; City Council authorized expenditure of \$14,700 for improvement of Sherman St.; John Patterson, Mayor. (Call for bids lately noted.)

Ala., Russellville.-Franklin County Com postponed date of election for ers oting on \$125,000 bond issue for road construction from November to February.

Ark., Little Rock.—Levying Court appropriated \$30,000 for road and bridge purposes and levied three-mill special road and bridge tax, amounting to more than \$120,000, to be expended on roads and bridges during com-ing year; J. Asher, Judge of Probate Court. (Recently incompletely mentioned.)

Ala., Shades Mountain (not a postoffic Shades Cliff Land Co., 2014 First Ave., Birmingham, Ala., contemplates street improvements. (See "Land Developments.")

Ark., Pine Bluff.—City awarded contract to Shelby & Bateman, Little Rock, Ark., at \$57,962 to pave 16 squares with creosoted wooden blocks and to erect concrete bridge on street to be paved.

Ala., Jasper.-City will pave all bordering on Court Square with asphalt. Address The Mayor.

Ark., Redfield.-Good roads district is being organized to build turnplke from boundary line between Pulaski and Jefferson counties near Redfield to Pine Bluff. Geo. R. Brown, secretary Little Rock (Ark.) Board of Trade, can give information.

Fla., Daytona.-St. Lucie County Com stoners are having surveys, plans and speci-fications prepared by D. D. & C. M. Rogers, Daytona, for road improvements; \$200,000 bord issue voted; character of material not determined.

Fla., Jacksonville.-Duval county will pave portion of Atlantic Blvd. from city limits of South Jacksonville for 6000 feet easterly with asphalt macadam and vitrified brick; bids received until November 24; Gail F. Barnard, County Engineer, Room 9 Courthouse (See "Machinery Wanted.")

Fla., Jacksonville. — Duval county will grade New York Ave. from point near Yukon county line at Orange Park, Fla.; also grade Kings road from point in Dinsmore Fla., to county line; bids received until De cember 6: Gail L. Barnard. County Engineer. (See "Machinery Wanted.")

Fla., Jacksonville.-Duval County Commis ers instructed Gail L. Barnard. County Engineer, to prepare specifications and advertise for bids for paving John Anderson highway from Loretto to county line; width, 10 feet, except at certain points to be desig nated by engineer, which are to be not over 15 feet wide; material to be vitrified brick or asphalt madadam to depth of six inches; bids to be opened December 29; C. W. Ellis, chairman County Commissioners.

Fla., Pensacola.-City awarded contract to rn Paving & Construction Co., Chat-a, Tenn., and Rudolph Blome Com-Chicago, Ill., for street paving; tanocga, Tenn., nany, Chicago, planned to lay 86,000 square yards block paving, 84,000 square yards brick p ing and 26,000 square yards granitoid pavir John A. Merritt, chairman State Board Bond Trustees; George Rommel, Jr., chief engineer. (Call for bids lately noted.)

Fla., Tampa.-City will pave Central Ave eventh to Floribraska Ave. with vitrified brick for width of 24 feet. Address The

Fla., Tampa.-D. B. McKay, Mayor, states recently-noted street improvements will cost within \$12,000; city contemplates floating bond issue for extensive improvements.

Ga., Rome.-City will pave East 1st St. from Second to Third Ave., and Third Ave. from Broad to East 1st St.; Board of Public Works will invite bids on various paving materials, including asphalt, vitrified brick, wood block, etc.

Ga., Savannah.-Chatham county will construct sand-clay paving on Augusta Rd. from Montieth toward Effingham county; John W. Motte, chairman committee on roads and

Ky., Lexington.-City will pave Lim St. from Winslow St. to Virginia Ave., and will construct sidewalks on following streets: South Broadway from Main to High St.; Barr St. from Walnut to Limestone St.; north side of 6th St. from Price to Pratt Ave., and Hanover Ave. from Main St. to Bullock Ave. : John Skain, Mayor.

Ky., Maysville.-City awarded contract to & Co. to pave sidewalks on north side St. between Wall and Lower Sts.

La., Hammond.-City contemplates issuing \$15,000 of bonds for streets and landings. Address The Mayor.

La., Lake Charles.-De Latte & La Grange of Lake Charles are lowest bidders for con struction of concrete curbing and cement sidewalks on South Division, Foster, Pujo, Iris, Gray and other streets; C. B. Richard, Iris, Gray Mayor. (Call for bids lately noted.)

Md., Baltimore.-State Roads Commission Union Trust Bdg., awarded contract to Geo. Jewell, Annapolis, Md., at \$45,442 to pave section of Baltimore-Annapolis Blvd. from Revells to Boon Station, 2.6 miles.

Md., Baltimore.—Paving Commission de-cided to arrange at once for paving 10 miles of streets not included in plans of Sewer Commission for sewer work : R. Keith Compton, chairman commission. (This is included in 30 miles of paving recently noted.)

Md., Chevy Chase.—Chevy Chase to Great Falls Land Corporation, H. Bradley David-son, president, Hendricks Bidg., Washington, D. C., will construct houlevard on either side electric car line. (See "Land Developments.")

Miss., Collins.-Covington County visors awarded contract to Frank Watts to uild and maintain roads in Beats 1 and 2.

Miss., Crystal Springs,-City will pave five miles of sidewalks with concrete; \$25,000. Address The Mayor.

Miss., Jackson.-Rankin County Highway Commissioners, District No. 2, will receive bids until December 4 to construct and improve 65 miles of roads; estimated cost \$25,-500; plans on file with J. A. Hammack, ener, Brandon, Miss.

Miss., Magnolia.-City voted bond issue \$12,000 for sidewa Norwood, Mayor. sidewalk construction; Joseph E.

N. C., Franklinton.-City will vote on \$10,000 ssue for road improvements. Address The Mayor.

N. C., Hendersonville.—Henderson county is considering \$100,000 bond issue for road improvements. Address County Commis-

N. C., Lincolnton.-City awarded contract to Edwards Construction Co., Hickory, N. C. to construct 2000 linear feet of sidewalks and 2000 linear feet of curb and gutter; Michae Hoke, engineer in charge, (Recently noted to receive bids until November 12.)

Okla., Kingfisher. - Geo. H. Woodward, County Clerk, states bond issue for con structing section of Chisholm Trail highway was defeated. (Recently noted.)

Okla., Pawhuska.-Caney township of Osage county voted \$40,000 bo improvements, Address County Commis-

S. C., Fort Mill.-City will vote December on \$4000 bond issue for macadamizing and sphalting Main St.; recent election illegal L. A. Harris, Mayor.

Tenn., Gainesboro.—Jackson county will ote December 9 on bond issue for road construction. Address County Commissioners.

Tenn., Halls.-B. M. Archer, Mayor, states that bond election for improving streets and sidewalks was postponed from November 14 to later date. (Recently noted.)

Tenn., Madisonville.—Monroe County Road Commission engaged F. G. Phillips of Bristol, Tenn., to survey about 157 miles of roads in Monroe county preparatory to grading and probably macadamizing; work will begin when \$150,000 of bonds have been sold: \$150,000 additional will be issued later If no

Tenn., Madisonville,-Monroe county will construct roads; F. G. Phillips (probably of Bristol, Tenn.), engineer in charge; expenditure about \$300,000.

Tenn., Memphis. - Speedway Land Co. awarded contracts as follows: Concrete work, B. F. Davis, at \$12,800; dirt, J. L. Nichols, at \$4500, and gravel paving, H. W. Brennen, at \$4500 for improving Stonewall St. from Speedway to Tutwilder St., Faxon St. from Watkins to Stonewall Sts., and excavating canal. (Previously mentioned.)

Tenn., Morristown.—City will pave section of Main, Henry and Cumberland Sts. Ad-dress The Mayor.

Tenn., Nashville -Thomas Eagan has con tract at \$5793 to construct cut-off road across Algiers Peninsula.

Tex., Abllene.—City awarded contract to Womack & Barnett to pave N. 2d St. with asphalt macadam.

Tex., Austin.—City awarded contract to Texas Bitulithic Co., Dallas, Tex., to pave driveways in Capitol grounds with bitulithic; State appropriated \$25,750, and will be increased by city's pro rata share.

Tex., Austin.-City will grade and gravel

outh Congress Ave. from Colorado River bridge to city limits, about one mile. dress The Mayor.

Tex., Bonham.-City awarded contract to Bert Huhn Construction Co. to pave the Square and North Main St.; construction begun.

Tex.. Beaumont.-City will pave Calder Ave. from Gulf to 1st St., and Washington St. from Pearl to Orleans St., with creosoted wooden blocks on concrete foundation; concrete curbing: about 2181 square vards paying and 726 linear feet curbing; bids opened November 21; J. G. Sutton, City Secretary; C. L. Scherer, City Engineer.

Tex., Dallas.-City awarded contract to J. A. Gregory at \$10,048 to pave Houston St. setween Commerce St. and Dallas-Oak Cliff between Commerce St. and Dallas-Oak Cliff viaduct with wooden blocks; also to Texas Bitulithic Co. of Dallas at \$2793.18 to pave Carroll Ave. between Elm St. and East Side with bitulithic. (Call for bids lately

Tex., El Paso. -City contemplates constr tion of asphalt macadam pavement of blocks of Arizona St. Address The Mayor.

Tex., Farmersville.-City awarded contract to C. H. Foley, Sherman, Tex., to construct gutters and cross-walks in public square. (Call for bids lately noted.)

Tex., Floreaville.—Wilson county will improve roads; will vote on \$30,000 bond issue for purchase of two complete road-building machines for building, including scrapers, etc. Address County Commissioners.

Tex., Houston Heights,-Citizens' Commitelected Howe & Wise, Houston, Tex., as engineers to supervise street improve-ments to cost about \$180,000. (Recently mentioned.)

Tex., Mexia.-Limestone county, Precinct No. 4, will vote December 16 on bond issue for road improvements. Address County Commissioners.

Tex., Pecos,—Precincts Nos. 1 and 4 of Reeves county will vote January 19, 1912, on \$100,000 bond issue for road construction. Address County Commissioners.

Tex., San Antonio.—City will pave Travis St. on either side of bridge and College St. from Navarre to Losoya St. with asphalt; Bryan Callaghan, Mayor.

Tex., Palestine.—Anderson county voted \$150,000 bond issue for road improvements. Address County Commissioners.

Tex., Paris.-McKnight Bros. ha to pave North 18th St.; E. H Mayor. (Recently mentioned.) H. McCuistion,

Tex., Pilot Point.-City voted \$12,000 sue for street improvements. Address The Mayor.

Tex., San Antonio.-City macadamized Zar zamoras St. at cost of \$7000; vicity direction. (Recently noted.) work under

Tex., Sherman.-Grayson county will vote December 4 on \$400,000 bond issue for road improvements. Address County Commission-

Tex., Sulphur Springs.--City contemplates paving public square. Address The Mayor.

Tex., Victoria.—Victoria county contemplates \$200,000 bond issue for road improvements in vicinity of Victoria. Address County Commissioners.

Tex., Victoria.-Mission Valley district of ictoria county contemplates \$40,000 bond a county contemplates \$4 for road improvements. Address County Commissioners

Va., Richmond.-Henrico county will con struct about one mile of macadam road on 2d Street Rd., about two miles from Rich-mond; bids revelved until November 27; P. St. J. Wilson, State Highway Commis-sioner. (See "Machinery Wanted.")

Va., Portsmouth.-Norfolk County Super visors voted to construct road from South bridge Norfolk across Indian Creek; cost about \$10,000.

Va., Richmond. — City appropriated \$1800 for grading and paving alley between Harri-son and Ryland, Broad and Grace Sts.; Charles E. Bolling, City Engineer.

Va., Tazewell.-Tazewell County Supervisors rejected all bids to construct two sec-tions of road in Maiden Spring Magisterial District; W. J. Lester, O. B. Barnes and W. E. Baylor, road committee. (Recently noted to receive bids until November 4.)

SEWER CONSTRUCTION

Ala., Union Springs.-City voted \$30,000 bond issue to construct sewer system. Ad-dress The Mayor. (Recently mentioned.)

Ark., Osceola.—City awarded contract to Roetzel & Chipman, Mt. Carmel, Ill., to construct sewer system and disposal plant.

Fla., Fort Pierce.--City will vote December

12 on \$30,000 bonds for construction of sewer system; R. Whyte, Mayor. (Previously men tioned.)

Fla., Tampa.-D. B. McKay, Mayor, states city is preparing for proposed bond iss \$2,000,000, which includes provision for pletion of sewer system; no definite a yet taken. (Previously noted.) definite action

Ga., Jonesboro,-City will vote on bond is. be to construct sewer system and water-orks, and enlarge electric-light plant; W. Watterson, Mayor.

La., Hammond.—City contemplates issuing \$35,000 of bonds for sewer construction. Ad. \$35,000 of bonds for sewer construction. Address The Mayor.

La., Morgan City.-City is having plans prepared by Xavier A. Kramer, en prepared by Aavier A. Aramer, engineer, Magnolia, Miss., for sewer system and water-works; engineer may be addressed. (Bond Issue of \$80,000 recently reported voted for sewers and water-works.)

Miss., Amory.—City awarded contract to cultivan, Long & Haggerty Company, Bes-Sullivan, semer, Ala., at \$26,435 to construct sewer system; Solomon-Norcross Company, Cand. er Bldg., Atlanta, Ga., engineers. noted.)

Mo., Sedalia.-City is having plans pared by F. T. Leaming of Sedalia and sanitary sewers and disposal plant; cost about \$75,000; C. E. Baker, City Clerk.

Mo., Springfield.-City voted \$100,000 b issue for installation of septic tanks. dress The Mayor.

Mo., St. Joseph.—City awarded contract to John Marshall to construct sewer in district No. 54.

Okla., Oklahoma City.-City Com ers instructed City Clerk to advertise for bids for construction of sanitary lateral sewers in Packingtown Addition; cost about

Okla., Oklahoma City.-City awarded tract to Stikes Construction Co. at \$2617.20 to construct sewer in Dale Addition and at \$2450.16 to construct sewer in Shilling's Addi

S. C., Columbia.—City will receive bids November 28 at 10 A. M. for laying about 640 feet 8-inch sewer pipe; one mile 8-inch ewer pipe will be laid early in 1912; F. C. Wyse, engineer-superintendent. (Pr noted. See "Machinery Wanted.") (Previously

Tenn., Halls.-B. M. Archer, Mayor, states bond election for sewer construction was postponed from November 14 to later date. (Recently noted.)

Tenn., Jellico.—Water-Works and Sewerage Committee, A. B. Mahan, secretary, rejected bids for construction of sewer system and will again invite bids in spring; system will comprise 5.7 miles 8 to 15-inch pipe sewer Walter G. Kirkpatrick, engineer, Jacks Miss. (Call for bids lately noted.)

Tex., Clarksville.-City voted bond issue nstruction of sewer system. The Mayor.

Tex., San Antonio. - Bryan Callagha Mayor, will instruct City Engineer to prepa San Antonio - Bryan Callaghan estimates of cost of constructing storm-water drainage system to drain section around South Park Terrace.

Va., Richmond.-Mayor approved ordinance providing for construction of sewer in Mosby St. from Carrington to Jay St.; cost \$1975; Charles E. Bolling, City Engineer.

W. Va., Elkton.—Town will construction.

Address Town Clerk.

W. Va., Warwood.—City contemplates construction of sewer system; E. J. Miller and H. J. Watson, civil engineers, submitted estimates

TELEPHONE SYSTEMS

Mo., Springfield.—Ozark Bell Telephone Co. subsidiary of Missouri & Kansas Telephone Co. of Kansas City, Mo.) will lay under ground conduits; reported to be preparatory to \$500,000 expenditure for reconstructing system and erecting office building. (Becently stated to construct telephone system from Springfield to Memphis. Tenn.)

Okla., Gage.-Gage Southwestern Teleg Co. incorporated with \$1500 capital stock by C. C. Allinger, N. E. Tucker and T. E.

Tex., Dallas.—Dallas Automatic Telephone Co. increased capital stock from \$500,000 to

Tex., Runge. -A. J. Moore will erect tele phone exchange.

TEXTILE MILLS

Ga., Egan - Cotton Duck, etc. - Piedmont Cotton Mills will install 22 broad looms; now erecting additional building.

N. C., Brevard - Cotton Yarns. - Brevard

Cotton Mills organized with W. C. Cleveland, president and treasurer, and J. H. Williams, vice-president and secretary, both of Greenville, S. C.; this company was recently reported as to take over and operate plant of Transylvania Cotton Mill Co.

November 23, 1911.]

g. C., Fountain Inn—Cotton Cloth.—Fountain Inn Manufacturing Co, votes December 19 on increasing capital stock from \$300,000

S. C., Simpsonville—Cotton Cloth.—Simpsonville Cotton Mills votes December 19 on increasing capital stock from \$500,000 to \$50,000.

Tex., San Angelo-Woolen Yarns.-J. T. Sanderson, Clarksburg, W. Va., is reported as promoting company with capital stock of \$50,000 to establish woolen mill.

WATER-POWER DEVELOPMENTS

Ala., Ragland.—Ragland Water-Power Co., W. T. Brown, president, engaged Martin H. Lide, engineer, Birmingham, Ala., to prepare plans and specifications for electric-power plant at Lock 4 on Coosa River.

Ga., Macon.—Central Georgia Transmission Co. incorporated with \$10,000 capital stock and privilege of increasing to \$2,000,000 by W. Jordan Massee, Thomas F. Wickham and Walter T. Johnson.

N. C., Tryon.—Hoke-Hill Real Estate & Investment Co., D. M. Hoke, president, Green-tille, S. C., contemplates development of water-power. (See "Land Developments.")

WATER-WORKS

Ala., Bessemer.—City will vote December 11 on purchasing water-works; I. A. Lewis, Mayor. (Recently noted to vote November 27 on issuance of bonds to construct waterworks.

Ala., Union Springs.—City voted \$5000 bond issue to construct tower. Address The Mayor. (Recently mentioned.)

Ark., Fort Smith.—City will expend \$100,000 for improvements to water-works, including 3,000,000-gallon settling reservoir, filtration plant capable of handling 3,000,000 gallons daily and dam across Poteau River to conserve water supply. G. W. Kiersted will be hydraulic engineer in charge. (Recently mentioned.)

mentioned.)

Ark., Gravette.—City will issue about \$25,-600 of bonds for construction of water-works and electric-light plant; E. L. Chatfield, J. F. Dorsett and G. A. Hughes, committee to have charge of plans and specifications. (Recently mentioned.)

Ala., Shades Mountain (not a postoffice).— Shades Cliff Land Co., 2014 First Ave., Bir-mingham, Ala., contemplates water-works construction. (See "Land Developments.")

Ala., Tallassee.—Tallassee Manufactur-ing Co. awarded contract to Gardiner & Pease. Columbus, Ga., to construct pro-posed filter plant; rubble stone and con-erte; 50x40 feet; plans by Lockwood, Greene & Co., Boston, Mass.; machinery purchased.

Fla., Fort Pierce.-City will vote December 12 on \$45,000 bond issue for construction of water-works; R. Whyte, Mayor. (Previously mentioned.)

Fla., Pensacola.—City awarded contract to Charles A. Born for laying 26,000 linear feet six-inch water mains and installation of hydrants in each block along line of extension; Frank Reilly, Mayor. (Call for blds lately redefined) lately noted.)

Fla., Port Tampa City.—City awarded contract to Chester A. McFarland of Tampa to lay water mains; six and eight-inch piping.

Ga., Jonesboro.—City will vote on bond mue to construct water-works and sewerage system and enlarge electric-light plant; W. L. Watterson, Mayor.

Ky., Madisonville.—City voted \$75,000 bond issue for construction of water-works. Address The Mayor. (Previously mentioned.)

La., Hammond.—City contemplates issuing \$10,000 of bonds for extension of water-works. Address The Mayor.

I.a., Morgan City.—City is having plans prepared by Xavier A. Kramer, engineer, Magnolia, Miss., for water-works and sewer system; engineer may be addressed. (Bond issue of \$80,000 recently reported voted for water-works and sewer system.)

Miss., Amory.—City awarded contract to Sullvan, Long & Haggerty Company, Bes-semer, Ala., at \$30,785 to construct water-works; Solomon-Norcross Company, Candler Bidg., Atlanta, Ga., engineers. (Recently Boted)

Miss., Georgetown.—City voted to construct water-works. Address The Mayor.

works; present system in operation for 16 years. (Recent report Incorrect.)

Miss., Shubuta.-City will vote December 12 on bond issue for construction of water-works, including 50,000-gailon tank with extra reservoir of 75,000 gallons capacity. Address The Mayor.

Mo., Springfield.—City defeated \$600,000 bond issue for construction of water-works. Address The Mayor. (Recently mentioned.)

N. C., Charlotte.-Board of Water Commis-N. C., Charlotte.—Board of Water Commissioners will receive bids until December 7 to construct pumping station and intake, including laying of about 160 feet of 36-inch pipe in rock trench; plans recently noted prepared by Gilbert C. White, engineer, Charlotte; A. H. Wearn, engineer. (See "Machingry Wangled") ery Wanted.")

okla., Bennington.—Board of Trustees will receive bids until 8 P. M. September 15 for construction of water-works; Nagel & Peterson, engineers, Muskogee, Okla.; Jesse Sipes, Town Clerk. (\$20,000 bond issue recently noted voted. See "Machinery Wanted.")

Okla., Noble.—Town voted \$8000 bond issue for water-works. Address Town Clerk.

Okla., Heavener.—City will construct dam 135 feet long across Blackfork River to con-serve supply of water at times when river is low; plans and specifications prepared. Address 'The Mayor.

S. C., Columbia.—City will receive bids November 28 at 10 A. M. for laying about 200 feet 6-inch water pipe; Water Depart-ment is preparing plans for one mile 6-inch and 8-inch water mains; F. C. Wyse, engi-neer-superintendent. (Previously noted. See "Machinery Wanted.")

S. C., Honea Path.—Board of Public Works, John F. Monroe, chairman, awarded contract to Cothran & Cothran, Greenwood, S. C., to construct water-works and electric-light plant; cost \$50,000. (Previously noted.) Tenn., Clarksville.—City will construct re-

inforced-concrete sedimentation basins, clear-water reservoirs, filter tanks and pumping station; bids received until December 4; S. J. Lowe, superintendent Water Department; Dabney H. Maury, consulting engineer. (See "Machinery Wanted.")

"Machinery Wanted.")

Tenn., Jellico.—City awarded contract to
Howard Neely, Mt. Pleasant, Tenn., to construct water-works; 1160 tons cast-iron pipe,
70 hydrants, 80 valves and 500,000-gallon concrete reservoir; Walter G. Kirkpatrick, engineer, Jackson, Miss.; A. B. Mahan, secretary
Water-works and Sewerage Commission.
(Call for bids lately noted.)

Tex. Dellos. City, will, vote, on \$500,000

(Call for bids lately noted.)

Tex., Dallas.—City will vote on \$500,000 bond issue for water-works improvements, including emergency wells (previously reported) to cost \$200,000 to \$225,000; city is also considering erection of filtration plant to have capacity of 15,000,000 gallons daily; J. B. Winslett, City Secretary. (Improvements to water-works mentioned at various times.) times.)

Tex., Decatur.—City will vote on \$18,000 bond issue to purchase and improve electric-light plant and water-works; \$10,000 of bond issue will be expended for purchase and \$8000 for improvements. Address The Mayor.

38000 for improvements. Address The Mayor.

Tex., Harlingen.—City engaged Randall.
Lovegrove-Wyman Company, Houston, Tex.,
to supervise construction of water-works
and electric-light plant; work includes piping, power plant, buildings and water tower;
\$32,000 bond issue voted for water-works, electric-light plant and street improvements; A.

W. Cunningham, Mayor. (Recently mentioned).

Tex., Marlin.—City, now owning two-thirds interest in water-works, contemplates pur-chasing remaining one-third and issuing about \$20,000 of bonds for improvements. Address The Mayor.

WOODWORKING PLANTS

La., New Orleans-Wagons,-W. E. Hogue will rebuild wagon factory recently burned. N. C., Fayetteville-Woodenware.-Fayetteville Woodenware Co. will rebuild dryklin recently reported burned; 40x70 feet; fire-proof construction; moist air system of dry-ing; cost \$4000. (See "Machinery Wanted.")

N. C., Hickory—Chairs.—Hickory Chair Manufacturing Co. has organized with J. D. Elliott, president; Thomas Setzer, vice-president, and George Bailey, secretary-treasurer; awarded contract for erection of two factory buildings, 80x50 feet and 100x50 feet, dry klins and boiler-house; metal clad; machinery probably purchased; daily capacity 25 dozen box-seat dining chairs. (Recently mentioned.) cently mentioned.)

N. C., High Point-Furniture.-Dalton Fur-Water-works. Address The Mayor.

Miss., Greenville.—W. Yerger, Mayor, states city will not vote bonds to construct water
"To feet, to plant."

Tenn., Humboldt - Hoops, - Osceola Hoop Co., McKenzie, Tenn., will erect hoop fac-tory; mill construction; cost of machinery (purchased), \$2590. (G. H. Woolever of Mc-Kenzie and others recently noted to establish factory.)

Tex., Greenville-Wagons.-T. J. wagon and carriage manufacturer, will erect

brick building; construction begun.

Tex., Newton—Spokes and Handles.—Sterling & Sheffield will install spoke and handle factory.

Va., Portsmouth—Furniture.—Veal Furni-ture Co. incorporated with \$15,000 capital stock; C. Brown, president; J. E. Woodhouse, vice-president, both of Norfolk, Va., and D. A. Veal, secretary and treasurer, Portsmouth.

Ala., Birmingham.—City Blacksmith Shops; lass \$2500. Address The Mayor.

Aia., Fort Deposit.—McCrory Bros.' cotton dn, loss \$8000; J. E. Holmes' store.

Ala., Gadsden.—Ralls Hospital, owned by Dr. A. W. Ralls; loss about \$10,000.

Ala., Plateau,-Joseph Kentz's warehouse : ut \$9000.

Ala., Munford.-S. A. Stewart & Son's store: loss \$5000.

Ark., Little Rock.-Jones House Furnishing Co.'s building and Shall Building, both owned by Fulk estate; losses, respectively, \$100,000 and \$75,000.

Ark., Little Rock.—Central Mill & Lumber Co.'s lumber shed at 9th and Railroad Sts.; loss \$4500; Gus Jones, president.

Ark., Texarkana.—J. C. Burch's residence at 17th and Boulevard Sts., owned by Stan-

ley Edwards; loss \$3000.

Ark., Warren.—J. T. Ederington's building; S. C. Knight's building; George W. Chester's building; loss about \$10,000.

D. C., Washington.—White Oak Coal Co.'s stable at 14th St. and Pennsylvania Ave.; Globe Printing Co.'s building damaged; total loss about \$100,000.

Ga., Griffin.—B. F. Culpepper's residence; oss \$7000.

Ga., Menlo.-Hammond Bros.' cotton gin Ga., Oxford.—A. T. Peek's cotton gin; esti-nated loss \$3000.

Ky., Campbellsville.—Campbellsville Electric Light Co.'s plant; loss \$30,000.

Ky., Louisville.—John C. Fedler's residence on Cherokee Rd.; loss \$15,000.

Ky., Owensboro.—Davies County Distilling Co.'s bonded warehouse, owned by estates of Deitrick Meschendorf of Louisville, Ky., and Thomas Medley of Owensboro; loss about \$400,000.

Ky., Paducah.—John W. Little's spoke factory; loss about \$10,000.

La., Bayou Goula.-Lewis E. Murrell's dwelling.

La., Church Point. - Homer Barrouse's store; loss about \$20,000.

La., Gibsland.-Dalton Lumber & Tie Co.'s sawmill; estimated loss \$47,000.

La., Lockport.-Julien Lefort's residence and store; loss \$10,000 to \$12,000. La., New Orleans.-John J. Hecker's sash,

door and blind factory and lumber and coal yard; estimated loss \$40,000.

La., New Orleans.—Southern Machine Co.'s plant; Southern Brass Bed Co.'s plant; Jos. Schwarts's warehouse No. 3; W. E. Hogue's wagon factory; Brandt Bros.' stables; total loss about \$40,000.

gation Co.'s depot.

factory at 103 Hopkins Pl. damaged; esti-mated loss \$25,000.

Md., Baltimore.—Bible House at 10 E. Fay-ette St., occupied by Bible Society, Harris & Fuller, John Hancock Life Insurance Co. and others; loss \$5000.

Md., Mt. Carmel, - George W. Gorsuch's

Md., Mt. Carmel. — George W. Gorsuch's dwelling; loss \$4000.
Md., Perryville.—M. E. Cole's store and two smaller buildings, owned by Pennsylvania Railroad Co., Alexander C. Shand, chief engineer, Philadelphia, Pa.; loss \$3000.

Miss., Hattlesburg.-W. S. Tatum Lumber

Miss., Natchez.-D. L. McKittrick's barn; loss \$5000.

Miss., New Hebron.—Mrs. Emma Berry's store, loss \$6000; Hebron Bank's building, occupied by Seat-Ellis Drug Co.

Mo., Carterville.—Homestead Lead & Zinc Co.'s concentrating plant; loss \$25,000.

Mo., Lamar.-Thomas Eggers' warehouse;

Mo., Lee's Summit.—Barn owned by Miss Dorothy Cooper of Kansas City, Mo., loss about \$4000; three barns owned by A. Sig-fried, Colonel Younger and Richard Williams.

N. C., Fayetteville.-Fayetteville Woodenware Co.'s brick dryhouse; loss \$8000.

Okla., Chickasha.—J. C. Ambrister's residence at 1124 Texas Ave.; loss \$5000.

Okla., Muskogec.—Fite & Rosey's building, loss \$52,000; Wisch-Jones Jewelry Co.'s build-ing, loss \$15,000; J. C. Welch Clothing Co.'s building, loss \$25,000; New York Candy Kitchen, loss \$900; Mohart Drug Co., loss \$15,000.

Okla., Sterling.—W. A. Sapp's store; Winn Drug Co.'s store; C. A. Inklebarger's build-ing; total loss about \$30,000.

Okla., Talahina.-R. H. Chowing's barn.

Okla., Talihina.-Edgar Miller's residence;

Okla., Porum.—Commercial Hotel; Jesse Shumake's building; Shahn Building; loss about \$4500. S. C., Olanta.—C. H. Hill's store; loss \$8000. S. C., Summerton.—Felder Bros.' residence;

loss \$5500.

Tenn., McMinnville.—Ritchey Manufacturing Co.'s telephone pin factory; loss \$2000.

Tex., Colorado.—Colorado Salt Co.'s stor-

age-house and ice plant; loss \$125,000. Tex., Dallas.—Mrs. Gussie Thomas' residence at 619 Ewing Ave., loss \$15,000; George T. Reynolds' residence, loss \$12,000.

Tex., Ferris.—Atlas Pressed Brick Co.'s plant; loss \$10,000.

Tex., Garland.—Buildings of J. W. Stacey, Dallas, Tex.; E. B. Shugart, R. A. Rooker, J. G. Williams and Dr. E. Sanford of Merit,

Tex., Houston.-Magnolin Cotton Oil Co.'s oil refinery; loss \$35,000.

Tex., Lockhart.-Griesenback Hotel.

Tex., Merkel.-F. K. Rister's dwelling; loss

Tex., Sandia.-Berry Hotel, owned by J. J.

Tex., Waxahachic.—J. E. Simmons' candy factory; D. G. Thompson's two buildings, loss \$5400; W. K. Koger's three buildings, loss \$7000; J. F. Wyatt's two buildings, loss \$5000; T. H. Ferrer's three buildings, loss \$5000; John Spaulding's building, loss \$5000.

Tex., Wheelock .- Sam Cavitt's barn. Va., Norfolk.-Royster Guano Co.'s mill; estimated loss \$20,000.

La., Laplace.—Louisiana Railway & Naviation Co.'s depot.

Md., Baltimore.—Kann & Co.'s shirtwaist

W. Va., Parkersburg.—J. M. Walker's apartment building; Frank Herdaman's building; loss about \$10,000.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Ala., Birmingham.—O. L. Richards of New York is reported as having plans prepared by W. C. Weston, Birmingham, for apart-ment-house at Avenue G and 23th St.; two stories; brick veneer, 135x90 feet; 12 six-room apartments; front and rear balconies; construction to permit erection of additional onstruction to permit erection of additional

D. C., Washington.—Harry Wardman, 1342 New York Ave. N. W., has plans by A. H. Beers, 1342 New York Ave. N. W., for apart-ment-house at 1432 B St. N. W.; four sto-ries; brick; cost \$50,000.

Fla., Lakeland.-H. D. Bassett will erect ent-house; pressed brick; two stories;

Ga., Atlanta.—Harper & Weathers are having plans prepared by A. Ten Eyck Brown, Atlanta, for apartment-house at 78 E. North Ave.; five stories; pressed brick; 10 apart-

Ga., Atlanta.—Miss Olive Laing's apartment-house will be 50x160 feet; three stories and basement; brick; vacuum vapor heat; electric lighting; dumbwalters; speaking tubes; letter boxes; tile floor to porches; blds opened November 18; plans by A. F. N. Everett, 600 Grand Bldg., Atlanta. (Recently noted) ly noted.)

Ga., Macon.-Leon S. Dure will erect store and apartment building. (See "Stores.")

Mo., Kansas City.—Burtch Investment Co.,

1200 Grand Ave. Temple, has plans by Shep-

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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herd, Farrar & Wiser, 1204 R. A. Long Bldg., Kansas City, for apartment building and cafe recently noted; cafe on first floor; four stories; 60x35 feet; eight apartments; four with four rooms and bath each and four with five rooms and bath each; cost \$16,000; construction by owner. (See "Machinery Wanted.")

Mo., St. Louis.-F. J. Fendler will erect six two-story tenements; cost \$19,800.

N. C., Hendersonville.-Dr. F. V. Hunter will erect two-story store and apartment building.

Tex., Paris. — Stewart Moore, Texarkana, Tex., prepared plans for proposed apartment-house; fireproof; cost about \$100,000.

ASSOCIATION AND FRATERNAL

Ala., Mobile. — Woodmen of the World lodges organized Woodmen's Building Association with \$35,000 capital stock; A. McKinstry, president; Gus Seiple, secretary-treasurer; is having plans prepared by Stone Bros., Mobile, for lodge building; six stories and basement; stores on first floor, offices above, and lodgerooms on sixth floor. (Recently noted.)

Ga., Fort Valley.—Bids will be received at 4 P. M. December 6 to erect Masonic and store building. Plans may be had on application to G. Lloyd Preacher, architect, Augusta, Ga.

Lat., New Orleans.—Benevolent Knights of America state that no improvements will be made to structure recently purchased. (Recently noted to remodel building.)

N. C., Charlotte.—Masonic Temple Association is planning to erect proposed building; 10 to 12 stories.

· Okla., Coalgate.—Order of Owls plans to erect lodge building; cost \$25,000.

Tenn., Tazewell.—Ancient Free and Accepted Masons plan to erect lodge building; S. V. Richardson, J. B. Crook and others, committee.

Tex., Cuero.—Independent Order of Odd Fellows plans to erect lodge building; two

Tex., Kyle.—Ancient Free and Accepted Masons have purchased stone building and will remodel as lodge building.

Tex., Buero.—Independent Order of Odd Fellows contemplates erection of lodge building.

Tex., Waxahachie.—Independent Order of Odd Fellows is reported to erect four-story building to replace structure reported burned.

Mo., Webster Groves.—Young Men's Christian Association plans to erect building.

Va., Richmond.—Young Woman's Christian Association plans campaign to raise funds for erection of building; Mrs. C. P. Walford, Mrs. J. Scott Parrish, Miss Katharine Hawes and others are interested.

BANK AND OFFICE

Ala., Mobile.—Woodmen's Building Association, A. McKinstry, president, will erect office, store and lodge building. (See "Association and Fraternal.")

Ark., Everton.—Bank of Everton, J. E. Potts, president, will erect bank building.

Fla., Lakeland.—Rev. Smith Hardin, pastor of Tampa Heights Methodist Church, Tampa, Fla., will erect store and office building. (See "Stores.")

Mo., Joplin.-W. S. Crane of Carthage, Mo., is reported as proposing erection of 10story office building.

Mo., St. Louis.—Koken Barber Supply Co. has plans by William A. Lucas, St. Louis, for office and factory building. (See "Miscellaneous Factories.")

S. C., Mount Croghan.—Taylor Bros. have plans by J. S. Starr, Rock Hill, S. C., for proposed bank building; 25x60 feet; one story; day labor; construction begun.

Tenn., Lexington. — Bank of Lexington, Christopher C. Davis, cashier, will erect bank building to replace burned structure; two stories; colonial-style front with stone columns. (Recently reported burned.)

Tex., Greenville.—Mrs. J. P. Reagan purchased Levy Bidg.; will erect additional or fourth story, install electric elevator, etc.

Tex., Donna.—Bank of Donna, H. C. Davis, president, will erect bank building; pressed brick; stone trimmings.

Tex., Jacksonville.—First National Bank will erect bank building.

CHURCHES

Ala., West End Station, Birmingham.— Blessed Sacrament Catholic Church, Rev. Patrick Turner, pastor, plans later to erect permanent church to replace present temporary structure. (See "Schools.") N. C., Southport.—Trustees of Regan Baptist Church will erect edifice.

S. C., Chester.—Thomas F. Parker, vicepresident Parker Cotton Mills Co., Greenville, S. C., states that company is not at present planning to erect church or school for operatives of Wylle Mills as recently reported.

 C., Ware Shoals.—Baptist congregation plans to erect edifice. Address The Pastor, Baptist Church.

Tex., Dalhart.—First Baptist Church, Rev. W. L. Williamson, pastor, will expend \$12,000 to erect edifice; 44x74 feet; ordinary construction; hot-air heat; plans by Ray & Berry, Amarillo, Tex.; date of opening bids not determined. (Recently noted.)

Tex., Denton.—First Baptist Church, Rev. M. F. Andrews, pastor, has not determined upon plans for edifice; brick; cost \$35,000 to \$40,000; will open bids in February or March. (Recently noted.)

Va., Gate City. — Methodist Episcopal Church, Rev. T. J. Crumley, pastor, will erect edifice.

Va., Richmond.—Presbyterian congregation, Rev. Wesley Baker, pastor, plans to erect edifice; cost about \$5000; W. M. Chase, chairman of building committee.

CITY AND COUNTY

Ala., Anniston — Jall. — Calhoun County Commissioners are reported as having plans prepared by C. W. Carlton, Anniston, for improvements to jall. (Previously noted.)

Ala., Bay Minette—Jail.—Baldwin County Commissioners receive bids until December 13 to erect jail; certified check for \$500, payable to J. H. H. Smith, Judge of Probate; plans, specifications and drawings at office of Judge of Probate as above or of Frederick Ausfeld, architect, 1026 Bell Bldg., Montgomery, Ala. (Previously noted.)

Ala., Montgomery-Jail.-City will remodel jail; Allen Gilchrist, City Engineer.

Fla., Pensacola—Fire-alarm Station.—Board of Public Works will have plans prepared by W. D. Willis, Pensacola, for central fire-alarm station; two stories; brick; practically fireproof; pebble dash; red tile roof; Spanish type front; ground floor of concrete; clay-bottom stalls; separate doors for vehicles and people; brass sliding poles; dormitory on second floor; also rooms for electrician and chief's office; baths and tollets on both floors. (Recently noted.)

Ga., Athens—Jail, etc.—Clarke county will vote December 7 on \$200,000 bond issue to erect courthouse, jail and Jailer's residence; J. M. Hodgson, chairman.

Ga., Valdosta-Jail.-Lowndes County Commissioners will erect jail.

Ky., Louisville—Library.—Louisville Free Public Library, William F. Yust, librarian, is having plans prepared by D. X. Murphy & Bro., 250 5th St., Louisville, for library; ordinary construction; cost \$22,560; date of opening bids not fixed. (Recently noted.)

Ky., Maysville.—Trustees of Wilson Hospital will expend several thousand dollars for improvements to hospital, including operating-room, etc.

Tex., Jourdanton—Courthouse and Jail.— Atascosa County Commissioners will award contracts about December 1 to erect courthouse and jail.

COURTHOUSES

Ga., Athens.—Clarke county will vote December 7 on \$200,000 bond issue to erect courthouse, jail and jailor's residence; J. M. Hodgson, chairman.

Mo., Princeton.—Mercer county has plans by Soneman & Van Trump, Kansas City, Mo., for courthouse; 65x90 feet; fireproof construction; steam heat; electric lighting; cost \$72,500; plans will be ready by December 20. (Bond issue of \$75,000 recently reported voted.)

Okla., Pawhuska.—Osage county voted \$100,-000 bond issue to erect courthouse. Address County Commissioners.

Tenn., Chattanooga.—Sealed proposals received by undersigned at Hamilton National Bank until noon December 20 (date extended from November 27) to erect courthouse for Hamilton county in Chattanooga; for plans and specifications apply to R. H. Hunt, architect, Chattanooga; usual rights reserved; M. M. Allison, chairman. (Recently noted:)

Tex., El Paso.—El Paso county will erect fireproof addition to courthouse; extension of present heating plant; cost \$35,000; architect not selected; address County Commissioners. (Bond issue of \$40,000 recently reported voted.)

Tex., Grapeland.-Houston County Com-

missioners, Crockett, Tex., will erect court-

Tex., Jourdanton.—Atacosa County Commissioners will a ard contract about December 1 to erect courthouse and jail.

DWELLINGS

D. C., Washington.—M. H. Bray, 1308 Belmont St. N. W., has plans by A. E. Langvoigt for dwelling at 3804 Jenifer St. N. W.; two stories; frame; cost \$6500.
D. C., Washington.—F. H. Wurzbacher, 404

D. C., Washington.—F. H. Wurzbacher, 494 5th St. N. E., has plans by E. O. Volland for two-story brick and frame dwelling and one-story frame garage at 4819 Iowa Aye. N. W.; cost \$4000.

D. C., Washington.—H. R. Howenstein, 1314 F St. N. W., will erect four dwellings at 230-36 Rhode Island Ave. N. W.; two stories; brick; cost \$12,000; plans and construction by owner.

D. C. Washington.—Thomas H. Melton.

D. C., Washington.—Thomas H. Melton, 1315 H St. N. W., will erect dwelling at 2800 Wisconsin Ave.; two stories and cellar; cost \$3000.

D. C., Washington.—C. A. Baker, The Burlington, will erect residence on Longfellow St. near 16th St. extended.

D. C., Washington.—George D. Lantel, 810 Massachusetts Ave. N. E., has plans by E. F. Farnham for two-story frame dwelling at 3769 Oliver St. N. W.; cost \$5000.

Fla., Tampa.—Miss Helen M. Brown will erect residence; cost \$3500.

Ga., Atlanta.—Mrs. R. T. Dorsey has plans by Hentz & Reid, Candler Bidg., Atlanta, for dwelling on Peachtree Rd.; one story; brick or frame; cost \$6000.

Ga., Athens.—Clarke county will vote December 7 on \$20,000 bond issue to erect courthouse, jail and jailer's residence; J. M. Hodgson, chairman.

Ga., Atlanta.—Mrs. Lena Chamblee will erect residence at 167 Crew St.; cost \$3000; plans by W. H. Allen, Walton Bldg., Atlanta; day labor.

Ga., Atlanta.—W. H. Wynne will erect dwelling at 198 Cleburne Ave.; cost \$6000; plans by W. H. Allen, Walton Bidg., Atlanta; day labor.

Ga., Atlanta.—J. B. Chamblee will erect two dwellings at 169 and 171 Crew St.; cost \$6000; plans by W. H. Allen, Walton Bldg., Atlanta; day labor.

Ga., Atlanta.—Williams-Hartsock Company will erect three dwellings at 63 Cleburne Ave., 337 Myrtle St. and 40 Piedmont Pl.; cost \$3500, \$3200 and \$2650, respectively.

Ga., Atanta.—Harper & Weathers are having plans prepared by S. D. Trowbridge, Atlanta, for two residences on Ponce de Leon Ave.

Ga., Cartersville.—John A. Miller will erect residence; two stories; stucco construction. Ga., Cochran.—T. D. Walker will not at

present erect dwelling, as recently reported.
Ga., Oxford.—Dr. Charles W. Pepper contemplates erection of residence; two stories; frame; cost \$5000.

Ky., Lexington.-Mrs. W. R. Thomas of Winchester, Ky., will erect residence.

La., Lake Charles.—Charles O. Noble will erect residence.

La., New Orleans.—Walter C. Wright will erect residence.

Md., Baltimore.—Thomas F. Mullan, Old York Rd. near Dumbarton Ave., Is having plans prepared by A. L. Blatchley for twoand-a-half-story cottage on Cator Ave.; frame and stucco; 26x32 feet.

Md., Baltimore.—William J. Armiger, 1136 Carroll St., is having plans prepared by F. E. Beall, 213 St. Paul St., Baltimore, for eight dwellings on Gutman Ave.; two stories; porch front; semi-detached; 15x47 feet; electric lights; hot-air heat; cost \$9000; construction by owner.

Md., Baltimore.—J. Wilson Stehl, 2009 Eutaw Pl., Is having plans prepared by H. I., Wernsinger for cotage on Greenspring Ave.; two and a half stories; brick; galvanized-lron cornices; hardwood and tile floors; gas and electric fixtures; cost about \$10,000; E. G. Turner, Bateman Ave. near Garrison Ave., Baltimore, is estimating.

Md., Baltimore.—Walter Westphal, 1700 N. Bond St., will erect 50 dwellings on Lexington St. near Smallwood St.; two stories.

Md., Baltimore.—John T. Donohue, 1808
Thames St., has plans by M. R. Stone, 2238
E. Hoffman St., Baltimore, for 26 dwellings
on Ellwood Ave. between Lombard and Pratt
Sts.; two stories; brick; 13x45 feet; tin
roofs; cost \$35,000.

Md., Baltimore.—John J. Carlin, 215 St. Paul St., purchased Shorey place on Fifth Ave. near Park Heights Ave., 400x400 feet, and will erect number of dwellings. Md., Baltimore.—Park Land Corporation, Garrison Ave. opposite Kelso Home, is having plans prepared by Frank H. Callaway, Garrison Ave. opposite Kelso Home, for residence on Maine Ave. between Oakfield and Granada Aves.; three stories; 28x3 feet; cost \$2500.

Md., Baltimore.—Oliver P. Roberts of Roberts Bros., 427 E. Lexington St., has plans by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, for 10, dwellings on Norfolk Are. near Winfield; two stories; brick; gas light; hot-water heat; cost \$20,000.

Md., Baltimore.—Charles B. Burdette, 226 N. Fulton Ave., will erect six dwellings on Dulany St. near E. Lynne Ave.; two stories; brick; 12x38 feet; tin roofs; galvanized irrocornices; hot-air heat; gas lighting; cement sidewalks; cost \$6000; plans by Roland B. Burdette, 226 N. Fulton Ave., Baltimore; construction by owner.

Mo., Kansas City.—Long Construction Co. will erect two dwellings at 3321 and 3331 Karnes Blvd.; cost \$4500 each.

Mo., Kansas City.—Hodgen I. Wilson, vicepresident of Ryley-Wilson Grocery Co., will crect \$30,000 residence.

Mo., Kansas City.—Herbert M. Woolf of Woolf Bros. Furnishing Goods Co. will erect bungalow; natural stone; cost \$5000.

Mo., Kansas City.—Corbin Building Co. has plans by W. F. Corbin, 4415 Jefferson St., Kansas City, for two residences; stucco and frame; 40x30 feet and 33x24 feet respectively; thot-water and hot-air heat; gas and electric lighting in each; cost \$9000 and \$4000; construction by owners. (Recently noted.)

Mo., Kansas City.—J. A. & N. W. Butler will expend \$27,000 to erect two residences; 40x40 feet; stone and concrete; hot-water heat; gas and electric lighting; concrete sidewalks. (Recently noted.)

Mo., Kansas City.—Mary A. Morley will erect brick veneer dwelling at 3421 Washington St.; cost \$3000.

Mo., Kansas City.—Dawson & Caldwell will erect dwelling; stucco; cost \$4500.

Mo., Kansas City.-H. A. Zurn will erect nine dwellings on Olive St.; Stone veneer; total cost about \$13,500. Mo., St. Louis.-E. L. Wagner Construc-

tion Co. will erect dwelling at 6064 Westminster St.; two stories; cost \$5500. Mo., St. Louis.—Reisinger & Worthington will erect five three-story dwellings; cost

will erect five three-story dwellings; cost \$25,000.

N. C., Tryon,—Hoke-Hill Real Estate & Investment Co., D. M. Hoke, president, con-

templates erection of several cottages. (See "Land Developments.") Okla., Oklahoma City.—A. M. DeBolt will

erect residence; brick; cost \$16,700.

Tex., Dallas.—Frank J. Hall will erect resi-

dence.

Tex., Dallas.—T. W. Vardell will erect residence; two stories; brick veneer.

Tex., Dallas.—B. F. Germany has plans by Associated Architects, 513 Slaughter Bidg., Dallas, for dwelling; ordinary construction; natural gas heating; cost \$150. (See "Machinery Wanted.")

Tex., Taylor.—H. F. Soegle will erect residence.

Tex., Taylor.-Dr. R. E. B. Bledsoe will erect residence.

Va., Norfolk.—H. Robert Diehl, 345 Arcade Bldg., Norfolk, prepared plans for dwelling of Mrs. George M. Payne; has no connection with Lee & Diehl. (Recent report incorrect.)

Va., Richmond.—C. W. and J. Lee Davis will erect dwelling on Hanover St.; two stories; brick; cost \$6006.

Va., Richmond.—Robert S. Crump will creet detached two-story-and-attic brick dwelling on Grace St.; cost \$10,000.

Va., Richmond. — Harvey C. Brown will erect 10 dwellings; brick; cost \$50,000. Va., Richmond.—V. L. Perkins will erect four dwellings; cost \$11,000.

Va., Richmond.—W. H. Clay will erect five or six dwellings.

Va., Upperville.—Robert Lee will erect residence; cost \$10,000.

GOVERNMENT AND STATE

D. C., Washington-Bureau of Printing and Engraving.—Treasury Department, James Knox Taylor, supervising architect, awarded contract at \$1.169.447 to J. Henry Miller, Inc. 106 Dover St., Baltimore, Md., to erect building for Bureau of Printing and Engraving. including roof and ground surface drainage system; fireproof construction; brick; limestone trimmings; 90,000 square feet ground area. (Recently noted.)

La., New Orleans-Immigration Station.
Samuel E. Redfern, Commissioner of Imm

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gration, Maison Blanche Bidg., will receive bids until 2 P. M. December 19 to erect build-ings for immigration station; particulars on application.

Ls., New Orleans—Immigration Buildings. Sealed proposals received until 2 P. M. De-cember 19, and then opened, for furnishing all labor and materials incident to construcall labor and materials incident to construc-tion of buildings for immigration station at New Orleans, according to plans and specifi-cations prepared; particulars as to limita-tions governing bidders may be obtained upon application to Samuel E. Redfern, Commis-sioner of Immigration, Maison Blanche Bidg., New Orleans, La.

Md., Baltimore — Hospital. — Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., will receive bids until 3 P. M. November 20 for repairing nd painting United States Marine Hospital; plans and specifications obtained at discretion of Architect Taylor.

Tenn., Knoxville-Federal Building.-Treas mry Department, James Knox Taylor, supervising architect, Washington, D. C., will expend about \$4000 for improvements to Federal building, including revolving doors, marble or terrazo floor for lobby, additional entrances, etc.

Va., Norfolk - Lighthouse. Va., Norious Lighthouse. Bureau of Lighthouses, Department of Commerce and Labor, will receive bids at office of Light-house Inspector, Baltimore, Md., until De-cember 15 for furnishing metal work and erection of Thimble Shoal Lighthouse according to specifications which, with blank proposals, may be obtained on application to Commander H. C. Poundstone, U. S. N., retired, inspector.

HOTELS

Fla., Tampa.—II. M. Stamford, manager Tampa Bay Hotel, will expend \$25,000 to \$30,000 for improvements to hotel; to include in-terior decorations, installation of new mary, etc.; improvements now being made Stamford recently noted to have se cured lease on hotel.)

Fla., Tarpon Springs. — Tarpon Springs Hotel Co. Incorporated with \$50,000 capital stock; Charles H. Brown, president, Tampa, Fla.; N. A. Van Winkle, vice-president, Tarpon Springs; C. H. Lutz, treasurer, Odessa, Fla.; John K. Cheney, secretary, Tarpon Springs. (Messrs. Brown, Lutz and Cheney recently noted as interested in erection of hotel of 50 rooms, to cost \$40,000 to \$50,000.)

Ga., Augusta.-Harry B. King is having plans prepared by L. A. Bellomby, Irish-American Bank Bldg., Augusta, for hotel; five stories; balcony over front entrance; 74 feet 4 inches by 270 feet; hot and cold running water in rooms; marquee over entrance; cost \$50,000 to \$60,000. (Recently

Miss., Biloxi.—W. A. White and Mrs. Cora White, owners of White House Hotel, will Issue \$20,000 of bonds; proceeds to be used in rebuilding and improving structure.

N. C., Durham.—E. J. Parrish contem-lates, it is reported, enlarging hotel and reade building, now nearing completion; plates, arcade proposed to enlarge hotel to about 100 rooms. (Previously noted.)

Tenn., Chattanooga.-Mountain Land Co will erect three-story main hotel building on Walden's Ridge instead of two-story structure as previously planned; 50 instead of 25 rooms; surrounded by ten or twelve three and four-room cottages; to be known as Signal Point Inn; plans by Adams & Alsup, Chattanooga. (Recently noted.)

Tex., Waxahachle.—Robert Harrison will rebuild Rogers Hotel; it is reported com-pany will be organized for this purpose; cost about \$100,000. (Recently reported burned.)

va., Lynchburg.—Lynchburg Hotel Corpo-ration has plans by V. T. Ritter, Hunting-ton, W. Va., for Virginian Hotel and will open bids November 28 to erect same; five stories and basement; 123 feet 10 inches by 120 feet 9 inches; glazed terra-cotta imita-tion of granite from street line to second foor; rough cast stucco or hollow tile with inlaid Moravian tile ornaments from second foor to roof; marque over each of three floor to roof; marquee over each of three entrances; main entrance through vestibule into foyer 20x32 feet; lobby 60x82 feet, with glass dome, marble wainscoting, columns and pilasters and Circassian walnut trimmings; phasters and Circassian wainut trimmings; banquet hall on second floor 40x77 feet; two passenger and one freight elevators; fire-proof construction; skeleton combination system of reinforced concrete and hollow tile; outside walls of hollow tile; inside par-titions of gypsum blocks; main stairways to have marble treads and risers, Iron balus-trades and wood band railing; impropery trades and wood hand railing; temporary wood roof with sing covering, to provide for

erection of additional story later; cost about \$125,000. (Previously noted.)

MISCELLANEOUS

Ala., Birmingham-Exhibit.-Alabama Poul-try Association plans to erect exhibit hall.

Ala., Gadsden-Hospital.-Dr. A. W. Ralls will rebuild Ralls hospital reported burned; about \$10,000.

La., Monroe—Hospital.—Rev. C. Mahe, pastor of St. Matthews Catholic Church, is interested in erection of Sanitarium Hospital at Jackson and Wood Sts., to be in charge of Franciscan Sisters of Alexandria, La.; plans call for three-story structure; 20 to 25 rooms for pay patients and four free wards; cost about \$50,000.

cost about \$50,000.

Md., Baitimore-Home.—Hebrew Hospital and Asylum, Monument St. and Rutland Ave., has revised plans by Parker, Thomas & Rice, Union Trust Bidg., Baltimore, for nurses' home; three stories; brick; stone trimming; 100x47 feet; cost about \$50,000; will open bids November 25; contractors estimating are B. F. Bennett Building Co., 123 S. Howard St. Monumonier, Sorrell, 1711 timating are B. F. Bennett Building Co., 128
S. Howard St.; Monmonier & Sorrell, 1711
McCulloh St.; Horace Ford; Consolidated
Engineering Co., Emerson Tower Bidg.;
D. M. Andrews, Mt. Vernon Ave. and 26th
St., and George Bunnecke & Sons. 305 St. Paul St., all of Baltimore. (Previously

Md.; Sparrows Point—Amusement Hall.— Sparrows Point Amusement Co. organized to erect amusement building to contain eight lowling alleys on first floor and hall above with stage 32x25 feet, to seat 900. (John Jenkins previously noted to erect hall.)

Mo., Kansas City-Gymnasium.—Hyde Park Christian Church, Main St. and Westport Ave., will erect annex to edifice for gymna-sium. Address The Pastor, Hyde Park Christian Church.

Mo., Kansas City-Society.-Jackson County fedical Society plans to erect building; cost about \$5500.

Mo., Kansas City-Cafe.-Burtch Invest-ment Co., 1200 Grand Ave. Temple, will erect apartment building and cafe. (See "Apart-

Mo., Kansas City-Hall.-Thomas Swear will erect garage, machine shop and (See "Motors and Garages.")

Mo., St. Louis-Drier.-Rogers Estate will erect steel drier at 3921 North Wharf; cost \$25,000.

Mo., St. Louis — Swimming-pool. — First Regiment Infantry, National Guard of Mis-souri, plans to construct swimming-pool with ary lockers and showers in basement of armory; concrete and tile; 30x70 feet.

Mo., St. Louis-Clubhouse, - Boy Scouts Troop of Episcopal Church of the Redeemer, H. C. Thompson, commissioner, will erect clubhouse; 75x80 feet; one-story; brick; cost about \$5000.

N. C., Newbern-Stables.-I. H. Cutler, Sr., will erect stable; brick; contract awarded.

will creet stable; brick; contract awarded.
Okla., Davis — Clubhouse. — Bankers' Club
will probably be organized with \$10,000 capital stock by C. C. Caldwell and others; plan
is to erect rustic clubhouse, construct concrete dam to provide lake for fishing, boating, etc.

8. C., Ware Shoals-Hall,-Ware Manufacturing Co. plans to erect hall for eratives

S. C., West (not a postoffice)-Racetrack. Charleston Fair and Racing Association, L. A. Cassidy, assistant secretary, 229 Meeting St., Charleston, S. C., has plans by Todd & Benson, Charleston, for racetrack, grand-stand, stables and fair buildings; ordinary construction; company will erect; F. Hayes of Charleston, engineer in charge. (Recently reported incorporated with \$250,000 capital stock.)

Tenn., Jackson - Clubhouse. - Lyndhurst Club plans to erect clubhouse.

Tenn., Nashville — Settlement House. — Woman's Board of Methodist Episcopal Church South plans to erect Wesley House on Fillmore St.; brick construction; cost about \$6000.

Va., Richmond-Clubhouse.-Virginia Boat Club, Beverly T. Crump, president, is plau-ning to erect clubhouse; cost about \$10,000; details not determined.

Va., Richmond-Home.-Baptist Home for Aged Women is having plans prepared by Carneal & Johnson, 409 National Bank of Virginia Bidg., Richmond, for home; Span-lsh renaissance; red tile roof; cost about \$25,000. (Previously noted.)

RAILWAY STATIONS

Ark., Conway.—St. Louis, Iron Mountain & Southern Railway, E. F. Mitchell, chief en-

gineer, St. Louis, Mo., is reported to erect passenger station.

Ark., Van Buren.—St. Louis, Iron Moun-tain & Southwestern Railway, E. F. Mitchell, chief engineer, St. Louis, Mo., is considering site for proposed passenger station; one story; pressed brick; tile roof; 188 feet long.

Ga., Macon.—Macon & Birmingham Rall-way Co., J. B. Munson, receiver, will erect freight depot; 20x30 feet; white waiting-room 15x20 feet; colored waiting-room 10x15 feet; baggage-room 10x15 feet; umbrella shed length of trains.

Ga., Statesboro.—Savannah & Statesboro Railway, D. N. Bacot, superintendent, is re-ported to erect freight depot.

Mo., Joplin.—Joplin & Pittsburg Railway Co., W. A. Satterlee, general manager, Pitts burg, Kans., will erect freighthouse, as re-cently reported.

N. C., Goldsboro.—Southern Railway, B. Hermann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., adopted plans, it is reported, for freight depot; brick; 200x50 feet; platform along west side.

N. C., Raleigh.-Southern Railway, B. Her-N. C., Raieign.—Southern Railway, D. Remann, chief engineer, 1300 Pennsylvania Ave. N. W., Washington, D. C., will, it is reported, erect freight depot; brick.

ported, erect freight depot; brick.

Tex., El Paso.—Texas & Pacific Railway,
C. H. Chamberlin, chief engineer, Dallas,
Tex., will erect freight depot; steel and concrete; 350x50 feet; platform 375 feet long on
one side of building; cost \$75,090.

Tex., Gatesville,-St. Louis Southwestern Railway, C. D. Purdon, chief engineer, Tyler,

Va., Rocky Mount.—Norfolk & Western Railway, C. S. Churchill, chief engineer, Roanoke, Va., will erect passenger and freight depot; frame construction; slate roof: two sections: cost about \$12,000.

W. Va., Warwood.-Pennsylvania Railroad, Alexander C. Shand, chief engineer, Phila-delphia, Pa., will erect proposed station; about 600 yards of track on switches leading to station; cost \$8000 to \$9000.

Ala., Hartselle.—School Board, J. F. Stew-art, M. Patilio and others, members, plans to

erect school.

Ala., West End, Station Birmingham.—
Blessed Sacrament Catholic Church, Rev.
Patrick Turner, pastor, will erect proposed
academy parochial school and convent; plans
in progress; initial provision for 200 day and
60 boarding pupils; is considering one three
or four-story brick building or separate
buildings; probable cost, \$40,000 to \$50,000;
later plans to erect permanent church to replace present temporary structure.

Ark., Favetteville.— Arkanass University

Ark.. Fayetteville. — Arkansas University has \$40,000 available and will erect building for department of education.

Ark., Marked Tree. — School Board will erect school; cost \$30,000.

Ga., Fort Valley.—City will receive bids until noon December 6 to erect school building; cost \$25,000; plans may be had upon application to architect, G. Lloyd Preacher, Augusta, Ga. (Recently noted.)

Ga., Thomasville,—City will vote January 15 on \$50,000 bond issue to erect school. Ad-dress The Mayor. (Recently noted.)

La., Columbia.—City voted tax to erect high school to replace burned structure. Address The Mayor. (Previously noted to rebuild this structure.)

La., Hammond.-City proposes to issue \$ 000 of bonds for school improvements. Address The Mayor.

La., Vidalia. — Concordia Parish School Board will issue \$20,000 worth of bonds to erect high-school building.

Okla., Ardmore.—Board of Education, G. H. Bruce, clerk, Box 237, will erect high-school building; fireproof construction; cost \$75,000; architect not yet employed.

S. C., Chester.—Thomas F. Parker, vice-president Parker Cotton Mills Co., Green-ville, S. C., states that company is not plan-ning at present to erect school or church for operatives of Wylle Mills, as recently reported.

S. C., Greenwood.—City will have plans prepared by Cothran & Cothran, Greenwood, for school building for negroes; cost \$4600; plans not complete.

S. C., Coneross.—Coneross School District Trustees will erect graded school.

S. C., Greenwood.—City is having plans prepared by Cothran & Cothran, Greenwood, for school building; 65x100 feet; two stories; ordinary brick construction; steam heat; electric lighting; cost \$20,000; bids opened

S. C., Rock Hill.-Rock Hill School District contemplates \$50,000 bond issue to erect high school. Address District School Trustees.

school. Address District School Trustees. Tenn., Collierville.—Shelby County School-house Commission has plans by Jones & Fur-bringer, Porter Bidg., Memphis, Tenn., for addition to school.

Tenn., Johnson City.—City Recorder will eccive bids until 7 P. M. November 27 to rect addition to Langston Colored School building.

building.

Tenn., Lebanon.—School directors, No. 10 school district, Wilson county, will open bids
December 1 to erect school to replace burned structure recently noted; 75x75 feet; three stories; fireproof construction; gravity steam heat; electric lighting; concrete sidewalks; cost \$25,000; plans by C. K. Colley, Nashville, Tenn.; contract will probably be awarded to Tenn.; contract will probably be awarded to Seagraves & Co., Lebanon. (See "Machinery

Tex., College Station. — Agricultural and Mechanical College, Walton Peteet, presi-dent, will have plans prepared by F. E. Gieske, College Station, for mess hall to replace structure recently reported burn and to accommodate 2500 students.

Tenn., Lebanon.-Directors Tenth Public Tenn., Lebanon.—Directors Tenth Public School District, Williamson county, will receive bids uptil December 1 to erect school to replace burned structure; bids for either wood, reinforced concrete or brick; completion by July 1, 1912; plans and specifications at office of R. P. McClain, president; B. J. Dillard, secretary; I. J. Dodson, directors.

Va., Altavista. — School Board of Otter River District plans to erect school; eight rooms; brick; cost \$10,000.

Va., Charlottesville.—University of Virginia, Armistead C. Gordon, rector, will have \$10,000 from George Peabody Fund to erect building for department of education.

Va., Richmond.—City is having plans pre-pared by Carneal & Johnson, 409 National Bank of Virginia Bidg., Richmond, for pro-posed school at 10th and Grace Sts.; cost about \$80,000.

Va., Rocky Mount.-Civic Betterment Club noting erection of high school to cost about \$10,000.

Tex., Tyler.-City will vote December 5 on \$50,000 bond issue to erect high school. Address The Mayor.

Va., Virginia Beach.—Virginia Beach Citizens' League has been organized to erect school to cost about \$6000.

STORES

Ala., Mobile.—Woodmen's Building Associ-ation, A. McKinstry, president, will erect store, office and lodge building. (See "Asso-

store, omee and lodge building. (See "Association and Fraternal.")

Fla., Jacksonville.—E. H. Tomlinson, J.

Miller Wilson, M. D. Johnson and others
purchased property at Newnan and Forsyth

Sts.; will improve building, making five
stores on Forsyth St. and two on Newnan St.

Tex., Smiley.—Sample Bros. will erect store o replace burned structure; construction

Fig., Jacksonville.—C. R. Armstrong has plans by W. B. Camp, Board of Trade Bidg., Jacksonville, for store building; three sto-ries; 60x58 feet; electric lighting; cost \$8000; day labor. (Recently noted.)

Fin., Lakeland.—Rev. Smith Hardin, pastor of Tampa Heights Methodist Church, Tampa, Fla., will erect store and office building; two stories; pressed brick; 52x70 feet; lower floor

for two stores; upper floor for offices.
Ga., Atlanta. — McClure Realty Co. will erect business building; brick; cost \$10,000; plans by W. H. Allen, Walton Bidg., Atlanta; day labor.

Ga., Atlanta.—Thomas H. Pitt, 206 Atlanta National Bank Bidg., will erect store build-ing at 263-5 Edgewood Ave.; two stories; 45x53 feet; tar and gravel roof; cost \$5000; day labor

Ga., Atlanta.-Fordon & Wolf will erect usiness building; brick; cost \$18,000.

Ga., Macon.—Leon S. Dure will erect six store buildings at 4th and Mulberry Sts., with apartment of 40 rooms on second floor to cover all stores; two stories; brick; cost \$25,000.

Ky., Louisville.-George P. Reach will erect two-story frame store building; cost \$3500.

Ga., Fort Valley.-Bids received at 4 P. M. December 6 to erect store and Masonic building; plans may be had upon application to G. Lloyd Preacher, architect, Augusta, Ga.

Ga., Waycross.—S. H. Kress & Co., 296 Broadway, New York, has plans for store building.

Md., Baltimore. — Louis Miller is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for improvements to

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store and warehouse at Baltimore and Lloyd Sts., including interior rearrangements, addition in rear of brick construction; electric lights, steam heat, etc.; cost about \$5000.

Mo., Kansas City.—Felix & Sons will erect business building; five stories and basement; reinforced concrete; cost \$75.000.

N. C., Hendersonville.—Dr. F. V. Hunter will erect store and apartment building; two stories.

Tenn., Jellico.—W. G. Smith will erect store and opera-house building; three stories; double; lower floor for stores; upper floors for opera-house.

Tenn., Nashville.—Tony Sudekum will expend \$5000 to remodel building at 608 Church St.

Tex., Austin.—Mrs. Josephine A. Allen purchased Board of Trade Bidg. and will, it is reported, remodel; character of improvements not decided.

Tex., Beaumont.—H. A. Peristein will soon award contract to erect proposed business building; two stories; brick; 53x136 feet; cost \$10,000 to \$12,000.

Tex., Center.—I. W. Hust will erect two business buildings; brick construction. Tex., Harlingen.—Alf Dieckman of San

Tex., Harlingen.—Alf Dieckman of San Antonio, Tex., will erect two store buildings; brick construction.

Tex., Mission.-I. M. Brown will erect onestory business building.

Tex., Palestine.—Moore Wholesale Grocery Co., main office, Tyler, Tex., will rebuild store reported burned at loss of \$100,000.

Va., Richmond.—Richmond Realty Co. will erect two stores; three stories; brick; cost \$10,000.

Va., Richmond.—Richmond Dairy Co. will erect two stores; three stories; cost \$10,000.

Va., Richmond. — Virginia-Carolina Hardware Co. is having plans prepared by Albert F. Huntt, Richmond, for proposed store and warehouse; brick and mill construction.

Va., Richmond.—L. K. Shepherd has plans by D. Wiley Anderson, Richmond, for store building at 409 E. Broad St.; two stories; brick.

Va., Richmond.—Charles H. Fisher prepared plans for proposed store building at 1434 E. Main St.; three stories; brick; cost about \$5500.

W. Va., Bluefield .- J. L. Crockett will probably erect business building.

W. Va., Bluefield.-C. M. Graham is planning to erect business building.

W. Va., Bluefield.—E. L. Bailey is reported to erect business building; brick.

THEATERS

Md., Sparrows Point.—Sparrows Point Amusement Co. will open bids November 27 to erect bowling alleys and theater; 50x112 feet; hollow tile construction; wooden floors and roof; electric lighting; cost \$10,000; plans by L. H. Fowler, 347 N. Charles St., Baltimore. C. S. Jackius, Sparrows Point, may be addressed.

Mo., Kansas City.—J. J. Swofford is reported to erect theater at 13th and McGee Sts.; fireproof; brick; concrete and steel; 99x132 feet; seating capacity, 2600; cost about \$125,000; plans by Carl Boller, Kansas City; will be leased by Edward P. Churchill of 1319 E. 29th St.

Mo., Kansas City.—Frank P. Smith is reported as to erect theater for Pantages Vaudeville Circuit; reported cost \$600,000.

Mo., St. Louis.—Imperial Theater Co. incorporated with \$2000 capital stock by Louis A. Cella, John H. Havlin and Joseph H. Marks.

Tenn., Jellico.-W. G. Smith will erect store and opera-house building. (See "Stores.")

WAREHOUSES

Ark., Argenta.—Arkausas Warehouse Co. will erect warehouse; sheet-metal reinforced with steel girders; 20,000 cubic feet storage space; cost \$15,000.

I.a., New Orleans.—Joseph Schwartz will rebuild warehouse No. 3, reported burned.

Md., Baltimore.—Louis Miller is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for improvements to store and warehouse building at Baltimore and Lloyd Sts. (S. e "Stores.")

Md., Baltimore.—Hirshberg, Hollander & Co., 25-27 and 106-110 W. Pratt St., has plans by Frank & Kavanaugh, 328 N. Charles St., Baltimore, for warehouse on Warner St.; three stories; pressed brick; stone trimmings; concrete foundation; slag roof; cement and sheet-metal flooring; fireproof; contractors estimating are Consolidated Engineering Co., Emerson Tower Bldg., and Monmonier & Sorrell, 1711 McCulloh St., both of Baltimore.

Miss., Natchez.—American Tobacco Co. of Mississippi, Daniel Brewer, president, Clarksdale, Miss., is reported as contemplating erection of warehouse.

Mo., East St. Louis.—Tyler estate will erect warehouse; probably be leased by Johnston Harvester Co. of Peoria, Ill., with local offices at 2207 Scott Ave.; four stories; mill construction; site 40x150 feet.

Mo., St. Louis.—St. Louis Fruit Auction

Mo., St. Louis.—St. Louis Fruit Auction Co. contemplates erecting warehouse on water front. Mo., Weston.—Weston Loose Leaf Tobacco

Mo., Weston.—Weston Loose Leaf Tobacco Warehouse Co. Incorporated with \$10,000 capital stock by H. B. Doran, F. E. Doran and J. C. Stone.

Okla., Oklahoma City. — N. S. Sherman Warehouse Co. advises Manufacturers Record that plans are not yet accepted for ware-

house at Main and Santa Fe Sts., recently noted; six-story 243x140-foot fireproof structure; for railway transfer and merchandisstorage and forwarding, and bonded warehouse business; cost without mechanical equipment, \$200,000; to have sprinkler system; heating, lighting, etc., not decided; probably three three-ton and one four-ton elevators and one small passenger car; bids opened in January. Address Ron V. Moran, vice-president, 612 Insurance Bidg.

N. C., Waxhaw.—Farmers Union is reported as to erect cotton warehouse; probably wood with brick walls for partitions.

Va., Richmond.—Virginia-Carolina Hardware Co. is having plans prepared by Albert F. Huntt, Richmond, for warehouse and store. (See "Stores.")

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ga., Savannah.—Mrs. F. M. Cornwell will expend \$10,000 to erect three-story apartment-house; brick; ordinary construction; mantels and grates; gas and electric lighting; plans and construction by Otto & Wilson, Germania Bank Bidg., Savannah. (Recently noted.)

Va., Richmond.—Richmond Dairy Co. has plans by and awarded contract to C. W. Davis & Bro., Richmond, to erect apartment and store building. (See "Stores.")

ASSOCIATION AND FRATERNAL

Ala., Montgomery.—Benevolent Protective Order of Elks awarded contract to James Hodgson, Montgomery, to erect addition to and improve lodge building; addition to be two stories and basement; 46x70 feet; cost of improvements, \$27,000 to \$30,000.

Ky., Louisville.—Railway Department Young Men's Christian Association awarded following contracts to erect building: Concrete work to Schickil Bros., stone kork to Julius Plazza and brick work to Jacob Hoertz, all work to Schickil Bros., stone work to Julius noted.)

Tex., Bardwell.—Ancient Free and Accepted Masons awarded contract to erect hall; brick; two stories; cost \$6000.

BANK AND OFFICE

Mo., St. Louis.—Laclede Gas Light Co. awarded contract to James Stewart Company, 32 Church St., New York, to erect office building; 10 stories; granite, brick and terra-cotta; ground floor finished in marble with mezzanine floor on four sides; fireproof steel construction; ventilating system operated by fans; steam heat; four elevators; cost about \$500,000; plans by Mauran, Russell & Crowell, St. Louis. (Previously more fully detailed.)

N. C., Rocky Mount. — John Arrington awarded contract to D. J. Rose of Rocky Mount to erect office and store building. (See "Stores.")

Tenn., Jellico.—First National Bank awarded contract for erection of bank building; two stories; pressed brick.

Tex., Amarillo.—National Bank of Commerce awarded contract to Collins Safe Co., Dennison, Tex., to remodel interior of buildlng, rearrange entire Polk St. front, etc., install marble and brass fixtures.

Tex., Houston.-G. W. Hawkins awarded contract to erect garage and office building; three stories; plans by Glover & Son, Houston.

CHURCHES

Fla., Pensacola. — Mount Zion Church awarded contract to Watts, Cole & Sunday to erect edifice; concrete foundation; brick walls 12 inches thick; fireproof; cost about \$20,000.

Md., Arlington.—Catholic Church awarded contract to A. Knell, Jr., 215 St. Paul St., Baltimore, Md., to erect edifice at Liberty Rd. and Montgomery Ave.; two stories; ornamental brick construction; lower floor for chapel; upper floor for living quarters; cost about \$20,000; plans by Robert C. Ulirich, 72 Gunther Bidg., Baltimore, Md.; Rev. T. B. Kenny, 528 E. 22d St., Baltimore, Md., will be pastor.

Miss., Guifport. — First Baptist Church awarded contract at \$16,500 to J. W. Hood & Co., New Orleans, La., to erect edifice; 60x100 feet; ordinary construction; plans by Keenan & Weiss, New Orleans, La. (Recently noted.)

Va., Lynchburg. — St. John's Episcopal Church, Rev. George F. Rogers, rector, awarded contract to W. K. Barger to erect edifice; shingle construction; cost \$3800 (Previously noted.)

COURTHOUSES

Tex., Claude.—Armstrong county awarded contract at \$48,767 to L. R. Wright & Co., Dallas, Tex., to erect courthouse; three stories; 55x90 feet; plans by E. G. Withers, Stamford, Tex. (Recently noted.)

DWELLINGS

Ala., Brewton.-C. Irwin awarded contract to B. C. Britt to erect one-story frame dwelling.

Ala., Brewton. — Wiley Downing awarded contract to E. M. Liles to erect three residences. (Recently noted.)

Ala., Fort Payne.—Dr. L. F. Irwin awarded contract to Cassidy & Cox to erect bungalow; cost \$3500.

Ark., Little Rock.—T. J. Parker awarded contract to D. H. Norwood, Little Rock, to erect residence; two stories; frame; cost \$3250.

D. C., Washington.—A. R. Townsend awarded contract to George A. Forbes, 416a Warner St. N. W., Washington, to erect dwellings at 1624-1628 A St. S. E.; cost \$15,000.

D. C., Washington.—Emma Schlick awarded contract to George C. Hough, 1317 H St. N. W., Washington, to erect three dwellings at 323-27 V St. N. W.; two stories; brick; cost \$4500; plans by A. C. Remhart.

D. C., Washington.—B. F. Adams awarded contract to William F. Harper, 506 Rhode Island Ave. N. W., Washington, to erect twostory frame dwelling at 3717 Morrison St. N. W.; cost \$6000.

Fla., Fort Pierce.—A. N. Hoofnagle awarded contract to A. J. Brewer, Fort Pierce, to erect cottage; brick.

Fla., Orlando.—Guif Coast Fruit Association will, it is reported, erect 26 dwellings; awarded contract to L. C. Lowe, architect, Huntington, W. Va., and J. H. Braden, contractor, Fullerton, Ky. (See "Land Development.")

Fla., Tampa.—Mrs. Laura D. Oppenhelmer awarded contract to Bates & Hudnall, Tampa, to erect residence; cost \$4000.

Ga., Cartersville.—B. L. Vaughan awarded contract to Mr. Perry, Atlanta, Ga., to erect residence; stained shingles; field stone chimney; porch columns; plans by Mr. Cooksey, Atlanta, Ga.

Ga., Cartersville.—Harris Cone nwarded contract to Eugene Smith to erect residence; semi-English style; shingle and stone exterior; plans by W. T. Downing, Atlanta, Ga.

Md., Baltimore. — Ridgewood Realty Co. awarded contract to William F. Welsh, 250 W. Preston St., Baltimore, to erect 32 dwellings on Reisterstown Rd., Violet Ave. and Springhill Ave.; two stories; iron-spot brick; porch fronts; slag roofs; i5x52 feet; gas and electric lights; hot-water heat; cost about \$90,000; plans by John Powers.

Md., Baltimore.—Fairmount Land Co., 607 Equitable Bidg., awarded contract to D. C. Slonaker, Windsor Mills Rd. and Harrison Ave., Baltimore, to erect three cottages on Chestnut Rd. near Cedar Rd.; two and a half stories; 29x31 feet; verandas; slate roofs; electric lights; steam heat; cost \$12.000.

Md., Baltimore. — J. Charles Linthicum, 217-19 St. Paul St., awarded contract to Jos. L. White, 28 S. Broadway, Baltimore, to erect 17 dwellings on Lakewood Ave. near Foster Ave.; two stories; brick; 1239 feet; electric lights; cost \$20,000; plans by Charles Broring, 9 N. Potomac St., Baltimore.

N. C., Hendersonville.—Edgar A. Baring of Cincinnati, O., awarded contract to erect residence; cost \$5000. S. C., Greenville.—Dunean Mills awarded contract to Fiske-Carter Construction Co., Worcester, Mass., to erect 112 dwellings for employes.

Tex., Dallas.—H. L. Edwards awarded contract to H. J. Curtis, Dallas, to erect proposed residence, garage and servants' quarters; reddish-brown brick, timber and stucco; red English tile roof; residence to contain 12 rooms; garage to accommodate five vehicles and stock; second floor for servants' quarters; will construct brick wall on Preston Rd. extending to lake on either side; plans by C. D. Hill & Co., Dallas.

Tex., Taylor.—Mrs. E. W. Harber awarded contract to G. B. Brieger, Taylor, to improve and remodel residence, including additional story of five rooms, new roof, new foundation; cost \$3000.

Va., Leesburg.—J. Page Laughlin, Pittsburgh, Pa., awarded contract to A. J. Simpson to erect residence; plans by Milburn, Heister & Co., Home Life Bidg.., Washington, D. C. (Noted in June.)

Va., Lynchburg. — St. John's Episcopal Church awarded contract to W. K. Barger, Lynchburg, to erect rectory; shingle construction; cost \$3000.

Va., Norfolk.-W. P. Bugg awarded contract to B. L. Nicholson, Norfolk, to erect frame residence; mill construction; hotwater heat; electric lighting; cost \$4000.

Va., Norfolk.—Charles McI. Tunstall awarded contract to Turpin Bros., 620 Dickson Bldg., Norfolk, to erect residence; brick and frame; 36x50 feet; hot-air heat; electric lighting; cost \$6500; plans by F. B. Evermann, Washington, D. C.

Va., Norfolk.—H. Robert Diehl, architect, 345 Arcade Bidg., Norfolk, awarded contract to Sawyers Bros., Norfolk, to erect residence in Ghent; brick; cost \$10,000.

Va., Norfolk. — Robert Tunstall awarded contract to Turpin Bros., Norfolk, to erect residence; brick; cost \$7000.

Va., Norfolk.—Dr. Burnley Lankford awarded contract to L. McCloud, Norfolk, to erect residence; frame; cost \$3350.

GOVERNMENT AND STATE

Ala., Florence — Postoffice. — Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract at \$98,800 to Barnes Bros., Logansport, Ind., to erect postoffice; 6000 square feet ground area; fireproof construction; stucco facing; stone trimmings.

Ark., Jonesboro—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract to Yager & Sons, Danville, Ill., to erect postoffice building; three stories; brick. stone and terra-cotta. (Recently noted.)

Ark., Jonesboro-Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract to M. Yeager & Sons, Jonesboro, to erect Federal building; cost about \$85,000. (Recently noted.)

.D. C., Washington — Postoffice. — Treasury Department, James Knox Taylor, supervising architect, awarded contract at \$2,197,000 to John Gill & Sons, Cleveland, O., to erect postoffice building; plans by D. H. Burnham & Co., Chicago, Ill. (Recently noted.)

Tex., Taylor—Federal.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., awarded contract for erection of proposed Federal building, and to S. M. Goodwyn, Taylor, for foundation work.

MISCELLANEOUS

Fla., Orlando—Commission Houses.—Gull Coast Fruit Association will, it is reported erect several commission houses in various cities, including St. Louis, New Orleans and Cincinnati. (See "Land Development.")

RAILWAY STATIONS

Md., Frostburg.—Western Maryland Rallroad, H. R. Pratt, chief engineer, Hillen Station, Baltimore, Md., awarded contract at \$14,000 to Olin Gerlach, Frostburg, to erect proposed depot; brick construction; completed in four months.

N. C., Charlotte.—Pledmont Traction Cowill expend \$15,000 to erect freight depot; 41x192 feet; one story; ordinary construction; plans by Hook & Rogers, Charlotte; contract recently noted awarded to J. A. Jones of Charlotte.

N. C., Gastonia. — Piedmont & Northera Railway Co. is reported to have awarded contract to J. A. Jones, Charlotte, N. C., to erect proposed freight depot; 20x200 feet. 1911.

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SCHOOLS

Ga., Atlanta.—Board of Education awarded contract to Mackie-Crawford Construction Co., Atlanta, to erect George Adair School in Tenth ward; cost about \$40,000. (Previously ted.)

Tex., Beaumont.—Amelia School District Trustees awarded contract to W. C. Whit-ney, Beaumont, to erect school; W. H. Farmer, superintendent of public schools. (Previously noted.)

Tex., College Station.—Agricultural and Mechanical College, Walton Peteet, president, awarded contract at \$122,500 to Texas Building Co., Fort Worth, Tex., to erect enginer-ing building and dormitory; brick and re-inforced concrete; plans by F. E. Gieske, college architect, College Station. (Recently noted.)

Va., Claremont.-Industrial and College In Va., Claremont.—Industrial and College Institute for Temperance awarded contract September 1 to D. J. Farrar, 3d and Clay Sts., Richmond, to erect proposed college building; 150x50 feet; ordinary construction; low-pressure steam heat; electric lighting; cost \$50,000; plans by Carl Ruehrmund, 14 N. 8th St., Richmond.

Ala., Bessemer.—J. C. B. Gwin awarded contract to W. L. Coston to erect proposed store building; 50x140 feet; brick; cost \$5000.

Ala., Brewton.-J. O. Batson awarded contract to B. C. Brit to erect addition to bar-

D. C., Washington.—M. Goldenberg, 912-28
Th St. N. W., awarded contract to M. F.
Piper to erect store building at 905 7th St.
N. W.; four stories and cellar; brick and
terra-cotta; cost \$18,836; plans by Rich &
Fitz-Simons, Oxford Bldg., Washington.

Ga., Atlanta.-Fordon & Wolfe have plans by and awarded contract to Moise De Leon, Walton Bldg., Atlanta, to erect business building; two stories and basement; tar and gravel roof: cost \$18,000.

Ky., Bowling Green. — P. C. Jessee has plans by and awarded contract to C. H. Smith to erect store to replace burned structure; 88x104 feet; ordinary construction; stoves; electric lighting; hand power elevator; cost \$8000. (Recently noted.)

Miss., Tylertown.-H. H. Simn awarded contract to George Linton, Tyler-town, to erect 30x90-foot store building re-cently noted. (See "Machinery Wanted.")

N. C., Rocky Mount. — John Arrington awarded contract to D. J. Rose, Rocky Mount, to erect store and office building; to contain three stores; 40x90 feet; ordinary construction; stoves; electric lighting; cost \$10,000; plans by John C. Stout, Rocky Mount. (Recently noted.)

Tex., Mission.—Albert Sammons awarded contract to erect two-story business building.
Tex., Mission.—A. Dillard awarded contract to erect business building; two stories; brick.

Tex., Mission.-Salina & Co. awarded con tract to erect business building; two stories;

Tex., Plainview.-Dr. A. Woldert awarded rem., riainview.—Or. A. Woldert awarded contract to McRoe Building Co., Plainview, to erect two business buildings; 25x100 feet each; concrete floor; metal ceiling; electric lighting; plans by R. H. Downing, Tyler, Tex. (Previously noted.)

Tex., Taylor.—Dr. R. H. Eanes awarded contract to Ernest Groba, Taylor, to erect two stores, and subcontract to S. M. Goodwyn, Taylor, for foundation; one and two stories; 50x100 feet and 25x100 feet; cost stories; 50x100 feet and \$12,700. (Recently noted.)

Va., Richmond.-Richmond Dairy Co. has plans by and awarded contract to C. W. Davis & Bro., Richmond, to erect proposed store and apartment building; 40x70 feet; three stories; mill construction; grates; cost

WAREHOUSES

Ga., Atlanta.—Smith & Simpson's Realty Co. has plans by E. C. Seiz, 609 Empire Bidg., Atlanta, for warehouse; four stories and basement; 45x120 feet; mill construction; freight elevator; cost \$18,000.

S. C., Spartanburg.-J. H. Shores awarded contract to Green River Land Co., Spartanburg, to erect warehouse.

Henry Vogt Foundry of Louisville.

In connection with the fire which recently occurred in the plant of the Henry Vogt Maoccurred in the plant of the Henry Vogt Ma-chine Co., Louisville, Ky., it is learned that only the foundry building was injured and that the plant will resume operations at once without appreciable inconvenience in the continued filling of its orders for ice and refrigerating machines, water-tube boilers, tanks, smokestacks, steam dryers, etc.

RAILROAD CONSTRUCTION

RATEWAYS

Ala., Bessemer.—The Alabama Terminal Railroad Co. has been granted a franchise to build a line on First Ave. from Block 201 to Block 223. H. M. Atkinson and S. L. Schoonmaker, Atlanta, Ga., are receivers.

Ala., Birmingham.—The Birmingham, Ensley & Bessemer Railway is reported announcing that 16 miles of track have been laid on its line from East Lake via Ensley and Birmingham to Bessemer, about 34 miles,

Ala., Mobile.-B. F. Yoakum, chairman Ala., Mobile.—B. F. Yonkum, chairman of the Frisco System, which is largely interested in the control of the New Orleans, Mobile & Chicago Railroad, announces that it is contemplated to build an extension of the latter (possibly from Beaumont, Miss.) south to connect with the Louisville & Nashville, about 50 miles; also another connection of about 40 miles from Middleton to Jackson, Tenn., to the Nashville, Chattanooga & St. Louis Railway, in order to make a through route for the Frisco (by trackage nooga & St. Louis Railway, in order to make a through route for the Frisco (by trackage arrangement with the L. & N. and the N. C. & St. L.) from Chicago to New Orelans. W. F. Owen is vice-president and general manager of the New Orleans, Mobile & Chicago at Mobile, Ala. Also announced that the L. & N. has become interested in the N. O., M. & C.

Ala., York.—The Alabama, Tennessee & Northern Railway is reported to have completed its extension south from York to Ward, nine miles.

Ark., Higden. - Proposition is reported nade to the Little Rock Board of Trade by made to the Little Rock Board of Flader to Little Rock, about 60 miles. Higden is on the Missouri & North Arkansas Railroad north of Little Rock. George L. Sands, vicepresident of the railroad company, Eureka Springs, Ark., may be able to give informa-

Ark., Malvern.—An officer of the Rock Island lines is reported saying that construc-tion has just begun on the line from Malvern Two steel bridges each 50 feet long required.

Maximum grade north, 7 per cent.; south, 1
per cent. J. B. Berry, Chicago, is chief engineer

Ark., Rogers.-The Kansas City & Me Railway is reported to have completed its extension from Cave Springs to Clear Creek, 11 miles. M. Hays, Rogers, Ark,. is chief engineer.

Ark., Russellville.—The Russellville, Dover & Northern Railroad Co. is chartered to build from Russellville to Dover, Ark., nine miles; directors, W. H. Garanflo and R. D. Dunenn, president and cashier of the State National Bank of Little Rock; N. W. Yore of St. Louis, J. W. Martin of Russellville and J. W. Jarrett of Pover rett of Dover.

Ark., Stuttgart.-Central Arkansas & E. ern Railway is reported complete from England to Stuttgart, 26½ miles, and from Stuttgart to Hazen, 20 miles. Connections with the St. Louis Southwestern.

Fla., Century.—The Alger-Sullivan Lumber Co. of Century is reported to have let con-tract to J. N. Gillis & Son of Brewton, Ala., for grade and track on extension to Manistee Junction, seven miles; also contract to J. W. Wright, Union Springs, Ala., for about 19 miles of grading from Manistee Junction to Evergreen, Ala.

Fla., Dunnellon.-D. W. Gross is reported engineer of construction for the contemplated cut-off of the Atlantic Coast Line from Dun-nellon to Otter-Creek and Wilcox, Fla., about 60 miles; also from Perry to Monticello, about 30 miles. Address Wilmington, N. C.

Fla., Maytown.—The Florida East Coast Railway is reported to have completed and opened for service 23 miles (from Maytown to Chulota) on its extension to Lake Okee-chobee. A. L. Hunt, St. Augustine, Fla., is engineer.

Fla., Sarasota.-The Seaboard Air Line is reported to have finished its extension from Sarasota to Venice, Fla., 22 miles, and it will be operated December 1.

Ga., Athens.—President George J. Baldwin of the Gainesville Midland Railroad (regarding report that survey was being made for a line from Athens to Washington, Ga.) says that the regular engineer of the company merely went on a horseback reconnoissance over the route.

Ga., Hagan.—W. V. Davis, vice-president of the Savannah Trust Co., Savannah, Ga., says it is proposed to put the Register & Glenville Railway, which has headquarters at Hagan, in good condition and endeavor to develop it.

the Valdosta, Moultrie & Western Railway says that contract will be let soon for the extension of 90 miles from Moultrie to Fort Gaines, Ga., on the way to Montgomery, Ala. From Fort Gaines to Montgomery, 100 miles, route is now being located.

Ga., Waycross.—The petition for charter of the Waycross & Western Railroad Co. says that the line will be about 70 miles long, from Waycross via Militown to either long, from Waycross via Militown to either Hahira or Adel, Ga., or to some point on the Georgia Southern & Florida Railway be-tween those places. Headquarters at Way-cross; capital \$350,000. Alex. K. Sessoms, George W. Deen and others are incorporators. ber 16.) (See Manufacturers Record, Novem-

Ky., Harlan.—A letter says that the Wasioto & Black Mountain Railroad has be-gun construction on the Ages Creek branch, six miles long, out of Harlan.

La., Monroe.—J. M. Parker, general manager of the Arkansas, Louisiana & Guif Railroad; Wm. A. Otis of Colorado Springs Kairoad; Wm. A. Otts of Colorado Springs Co.; its vice-president and others are re-ported to have made an automobile trip from Hamburg, Ark., the northern terminal, via Monticello and Pine Bluff, Ark., to a point on the Rock Island lines, with a view o making an extension

La., New Iberia.—F. M. Welch of New Iberia is reported saying that construction on the Iberia, St. Mary & Eastern Railway is being pushed, and it is expected tracks will be completed in a day or two from New Iberia to Jeanerette, 12 miles, and to Charenton, 21 miles, by December 1. Line goes to Berwick, 52 miles from New Iberia.

Md., Cumberland.—The Western Maryland Railroad is reported to have laid 25 miles of track on its Connellsville extension, alto-gether 87 miles long.

Md., Hagerstown.—Construction has begun on the Hagerstown & Clear Springs Electric Railway, which will be 12 miles long. W. A. Potts & Company of Baltimore have con-tract. A. R. Hagner of Hagerstown is presi-

Md., Towson.—Grade is complete on the Yowson & Cockeysville Railway from Towson to Lutherville, three miles, and tracklaying is begun.

Miss., Laurel. — The Eastman-Gardiner Lumber Co. of Laurel is reported making a survey for a railroad from Mize, on the Gulf & Ship Island Railway, to Morton, on the Alabama & Vicksburg Railway, and thence to a point near Raleigh.

Miss., Meridian .- \$50,000 of bonds have just been voted by Meridian for terminals and right of way for the proposed Meridian & Pensacola Railroad, promoted by C. H. Pond of Moorehead, Miss., and others. J. W. Murphy of Chicago is engineer, with road headquarters at Meridian, Miss.

Miss., Yazoo City.-James H. Collins of Chicago, engineers, is reported saying that a steam railroad should be constructed over the proposed route between Yazoo City, Can-ton and Carthage, Miss., which he has investigated. E. L. Tarry, secretary of the Yazoo City Commercial Club, and others are inter-ested.

Miss., Yazoo City.—E. L. Tarry, secretary of the Yazoo Commercial Club, and others are reported to have employed James H. Collins of Chicago to make survey for the proposed interurban railway from Yazoo City to Canton, Miss., and also from Yazoo City to Vaughan, 27 miles and 22 miles, respectlvely.

Mo., Mexico.—The Mexico, Santa Fe & Perry Traction Co. is reported granted an extension of franchises in Fulton and Columbia, Mo., for one year. Line between Mexico and Molino is in use and line to Hereford has been started. It is planned to the contraction next spring. Mathias resume construction next spring. Mathias Crum, president, Mexico, Mo., is quoted say-ing that financing is assured.

Mo., St. Louis.—A dispatch from Minne-apolis quotes G. W. Seevers, general counsel of the Minneapolis & St. Louis Railway, and also of the Iowa Central Railway, as saying that the Iowa Central will be extended from Albia, Ia., to St. Louis, about 200 miles. R. G. Kenly is chief engineer at Minneapolis, Minn.

Burnsville,-The Black Mountain Railway is reported to have completed and is operating 6 miles of line and 3 miles more are to be completed connecting Burnsville with the Clinchfield road. J. B. Ray is president.

Slenville Railway, which has headquarters at Hagan, in good condition and endeavor to levelop it.

Ga., Valdosta.—President Frank Roberts of an extension. B. M. Fellows, 111 Broadway,

New York, is treasurer, and E. W. Shedd, Providence, B. I., is chief engineer.

N. C., Durham.—J. W. Murray of Burlington, N. C., is reported contemplating the construction of an electric railway to connect Durham and Greensboro, N. C., via Chapel Hill and Saxapaw, about 50 miles.

N. C., Elkin.-The Elkin & Alleghany Railroad is reported to have completed eight niles of track out of Elkin and is pushing on to the foot of the Blue Ridge.

N. C., Raleigh.—It is announced that the Norfolk Southern Railroad has acquired the Raleigh & Southport, the Durham & Char-lotte and the Aberdeen & Asheboro railroads lotte and the Aberdeen & Asheboro railroads and will soon make an extension from Raleigh to Concord, 110 miles. It is also stated that the same company has secured the charter for the Raleigh, Charlotte & Southern Railway, represented by E. C. Duncan of Raleigh. Extensions other than the above named are expected. F. L. Nicholson, Norfolk, Va., is chief engineer of the Norfolk Southern. folk Southern.

N. C., Waterville.—The Tennessee & North Carolina Railroad is reported to have com-pleted about 12 miles of extension during the summer from Waterville along Big Pigeon River toward Crestmont, N. C., 38½ miles.

Okla., Butler.—Survey reported complete for extension from Butler west to Cheyenne, 30 miles, and work to begin soon. Guy V. McClure, Oklahoma City, is chief engineer.

Okla., Henryetta.-The Missouri, Oklahoma Okla., Henryetta.—The Missouri, Okianoma & Gulf Railroad Co., Wm. Kenefick of Kansas City, president, is reported to have financed in France its proposed extension from Henryetta to Okiahoma City, 165 miles, via Shawnee, and the engineering forces at work on the route have been doubled.

Okla., Oklahoma City.—James Jacobs of Chickasha, Okla., and others are reported planning the construction of a direct line from Oklahoma City to Galveston, Tex., several hundred miles, the enterprise to be financed in Germany. It is estimated it will cost \$16,000,000. He will go to Berlin immediately. diately.

Okla., Sulphur. — Sulphur is reported to have accepted a proposition from the Tecumseh Interurban Railway Co. to build a line from the Artesian Hotel to Bromide Spring for a bonus of \$40,000 and terminal site, work to begin within six months.

Okla., Webber Falls.—The Webber Falls, Shawnee & Western Railway has completed and begun operating line from Webber Falls to Warner, Okla., 11 miles.

S. C., Anderson.—The Greenville, Spartan burg & Anderson Railway has let contract to J. C. Ross for grading and pipe laying on the new line into Anderson, and also on the connections to the Riverside-Toxaway and the Orr cotton mills.

S. C., Anderson.—Survey is completed be-tween Anderson and Abbeville, 15½ miles, for the proposed trolley line, which is also designed to reach Easley, and negotiations are reported progressing to finance the plan. M. N. Patterson is chief engineer.

S. C., Sumter.—Survey is reported in prog-ress for the extension of the South Carolina Western Railway from Bishopville to Sum-ter. W. R. Bonsal is president at Hamlet,

Chattanooga.-Charter is granted to the Chattanooga, Rome & Atlanta Inter-urban Rallway Co., capital \$100,000, incorpo-rated by J. H. Hill and others. (See Manufacturers Record, November 16.)

Tenn., Chattanooga.—The report that the Queen & Crescent Route will double-track its line all the way from Cincinnati to Chattanooga is denied by C. Dougherty, chief engi-

Tenn., College Grove.—The Middle Tennes-see Traction Co. is reported to have graded 19 miles from Franklin to Eagleville. Line is to continue to Shelbyville via College Grove, altogether about 40 miles from Frank-lin. P. E. Cox, Franklin, Tenn., is president.

Tenn., Jefferson City.—The Southern Railway denies the press report that it is building a branch to Dandridge, Tenn.

Tenn., Unicol.—The Clear Fork Lumber Co. of Unicol now has under construction from three to five miles of branch railroad to connect with the Unicol Railway.

Tex., Alpine.—The San Diego, El Paso & St. Louis Railroad has almost completed grade from Alpine to Hope, and tracklaying will soon begin.

Tex., Alpine.—The Southern Pacific is reported contemplating the construction of a branch from Alpine to Pecos, Tex., about 100 miles. D. K. Colburn is chief engineer at Houston, Tex.

Tex., Brownwood.—The Brownwood North & South Railrond, it is reported, has com-

pleted line from Brownwood north to May, 22 miles, and is operating. Survey made for extension to Rising Star. May also go to Vernon, Tex. John Mead Brownwood, Tex., is chief engineer.

Tex., Cleburne.—Reported that eight miles of grade are completed out of Cleburne on the Fort Worth & Cleburné Interurban, which will be 28 miles long.

Tex., Jefferson.—An officer of the Jefferson & Northwestern Railway is quoted saying that the company which proposed to build from Jefferson north to Lanier, 14 miles, and then via Luanna to Camp, 31 miles, including a branch from Lanier to Linden, Tex., five miles, has finished line to Linden. H. B. Montgomery, Jefferson, Tex., is chief engineer.

Tex., Memphis. — The Altus, Lubbock & Roswell Railway Co. is reported to have 89 miles of grade completed, while all, from Memphis to Lubbock, Tex., 140 miles, will be done by February 1, when tracklaying is to begin. From Lubbock to Roswell is about 160 miles. Ed Kennedy of Houston, Tex., and others are interested. Texas Construction Co. of Memphis, Tex., and Kansas City, Mo., is the contractor, and the Empire Construction & Finance Co., also of Kansas City, is said to be interested.

Tex., Pecos.—The Pecos Valley Southern Raliway, says a report from Austin, has registered \$400,000 of first mortgage bbnds on its line from Pecos to Toyahvale, 41 mlies, and proposes to build on from there and finally to Alpine, on the Southern Pacific Railrond. W. L. Carwile is president, and L. W. Anderson, chief engineer.

Tex., San Benito.—R. H. Kern of St. Louis is reported saying that construction of an extension of the San Benito Interurbaan Railway to Santa Maria will begin immediately. Sam Robertson of San Benito is in charge.

Tex., Sherman.—The Tioga Traction Co. is reported organized by business men of Tioga, Sherman and McKinney, and a line is to be built from Tioga to McKinney, and possibly to Gainesville, Tex.; capital \$600,000. Address Tioga Commercial Club, Tioga, Tex.

Tex., Stephenville.—The Stephenville North & South Texas Railway, which has applied for authority to issue \$2,250,000 of bonds, will, it is rumored, build an extension from Comanche, Tex., to a connection with the Texas & Pacific Railway or the Kansas City, Mexico & Orient Railway; also possibly to the Thurber coal fields. J. M. Killian is vice-president at Stephenville, Tex.

Tex., Sweetwater.—The Kansas City, Mexico & Orient Railway is reported to have completed extension from Barnhart to Big Lake, 19 miles.

Va., Norfolk.—The Norfolk & Portsmouth Belt Line Railroad expects to build early next year about a half mile of track near Norfolk to connect the main line and the South Branch spur. Geo. S. Shafer is superintendent at Port Norfolk.

Va., Norfolk.—F. L. Nicholson, chief engineer of the Norfolk-Southern Railroad, says that the company contemplates an extension from Virginia Beach to the State rifle range, 1.7 miles: Date of construction not decided, but work will probably be done by the company's forces.

Va., Norfolk.—Fergus Reid of Norfolk is quoted saying that he is obtaining rights of way between Tanners Creek and the Virginian Railway, a distance of several miles, for the Bush Bluff Railway, of which he is president, and that construction will be started as soon as the land is secured.

Va., Richmond.—Henry W. Anderson of Richmond says that the International & Great Northern Corporation (see Manufacturers Record of November 16) is a holding and securities company. Frank Jay Gould, Tarrytown, N. Y., is president; Guy Phillips, New York, is secretary and treasurer.

Va., Roanoke.—W. W. Boxley & Co. of Roanoke have been awarded a contract by the Virginian Raliway Co. to line with reinforced concrete 18 tunnels on its road in Virginia and West Virginia at a cost of \$900,000 to \$1,000,000. Work will begin immediately. A. M. Traugott, Glen Lyn, Va., is engineer in charge.

W. Va., Gassaway.—The Elk & Little Kanawha Rallway is reported to have completed 22 miles on its line from Gassaway to Rosedale, W. Va., and it is in operation. The contractor, J. J. Boxley & Son, is given another contract of five miles to be done by July next. C. P. Peyton, Charleston, W. Va., is chief engineer.

W. Va., Fairmont.—H. M. Fry, chief engineer of the Grafton, Fairmont & Clarksburg Railroad Co., says that the proposed line is from Grafton to Fairmont, 25 milés, with a

branch from Boothsville to Bridgeport, 7 miles. Main line is via Pruntytown, Meadland and Boothsville. Steel bridges required thus: 400 feet, 600 feet, 1250 feet, and four smaller structures, each about 60 feet long. Charles F. Sutherland of Morgantown, W. Va., is president; C. L. Reynolds, Flemington, W. Va., vice-president; A. F. Cordor of Flemington, W. Va., treasurer, and Charles S. Benton, Ferguson Bidg., Pittsburg, Pa., secretary. Others interested are John W. Mason, Jr., of Fairmont, and H. P. Keenan of Boothsville, W. Va.

W. Va., New Martinsville.—The Clarksburg-Northern Railroad Co. has filed mortgage to secure \$2,100,000 of 5 per cent. bonds for the construction of its line now under way from New Martinsville to Middlebourne and thence to Salem and Clarksburg.

STREET RAILWAYS

Ala., Birmingham.—The Shades Cliff Land Co., 2014 First Ave., Birmingham, proposes to build an extension of its electric car line at an approximate cost of \$50,000. Robert L. Totten is engineer in charge. G. T. Brazelton is president, W. N. Malone vice-president and Carl Stevens secretary and treasurer.

Ark., Fort Smith.-The Fort Smith Light

& Traction Co. has let grading contract for the street-railway extension to South Fort Smith to Hays & Payne. J. W. Gillette is manager.

Ky., Louisville.—The Louisville Railway Co. is considering a proposition that the Louisville & Interurban be extended from Fern Creek to Moun Washington, 10 miles. B. C. Milner, a civil engineer, is quoted as estimating that it can be built for \$380,000, including bridge across Floyd's Fork. T. J. Minary is president of the railway company.

N. C., Statesville.—Bird 8. Coler of New York and others interested in the North Carolina Public Service Corporation, Sallsbury, N. C., are reported contemplating the construction of a street railway in Statesville, T. H. Vanderford and T. J. Jerome of Sallsbury are in the company.

Tex., Denton.—The Denton Traction Co. and the Chamber of Commerce have closed an agreement for the proposed North Side extension.

Tex., Greenville. — The Greenville Street Railway Co. is reported extending to Mineral Heights, several miles north.

Tex., San Antonio.—The San Antonio Traction Co., it is reported, will build an extension of about one mile to San Fernando.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Air Compressor, etc.—Kanawha Auto Truck Co., 1000 Kanawha St., Charleston, W. Va., wants air compressor and tank of capaclty to use portable hand air drill to carry drills up to three-quarters or one inch, together with portable hand drill and riveting hammer to rivet cold rivets up to threequarters inch diameter.

Automobile Doors.—Southern Machine Works Co., 208 E. Commerce St., High Point, N. C., wants several thousand automobile doors stamped out of good grade of sheet Iron; wants to correspond with parties doing this work cheaply.

Bags.—Red Cedar Kildust Factory, Christiana, Tenn., wants to correspond with cloth bag manufacturers relative to placing order for making large quantity of fancy bags.

Boiler.—Protective Cap Co., T. E. Hoffman, secretary, Royston, Tex., wants prices on boiler.

Boilers .- See "Mining Machinery."

Bottle-washing Machines.—Lopis S Simon & Co., Houston, Tex., want to correspond with dealers in bottle-washing machines.

Brass Stands, etc.—F. E. Tipton, Hendersonville, N. C., wants (pastor's) brass reading stand, two brass flower stands and brass railing.

Brick Plant.-See "Clayworking Plant.

Bridge Construction.—Duval County Commissioners, Jacksonville, Fla., will receive bids until 10 A. M. December 6 for construction of reinforced concrete bridge over Goodby's Lake on John Anderson highway; plans and specifications on file with County Engineer at Room 9, County Courthouse, Jacksonville; bids to be addressed to C. W. Ellis, chairman board; Gail L. Barnard, County Engineer.

Building Materials.—Associated Architects, 513 Slaughter Bldg., Dallas, Tex., wants prices on brick, face-brick foundation, stone trimmings and hardwood floors.

Builders' Supplies.—Prótective Cap Co. T. E. Hoffman, secretary, Royston, Tex., wants prices on builders' supplies.

Buckets .- See "Derrick, etc."

Cafe Furniture. — Burtch Investment, 1200 Grand Ave. Temple, Kansas City, Mo., wants information, etc., relative to cafe furniture.

Cans.—Red Cedar Kildust Factory, Christiana, Tenn., wants prices on 5 and 10-pound cans in 1 to 5000 lots; also on 5 and 10-gallon oil cans.

Cannery.—Board of Trade, W. C. Mahin, secretary, Hawthorne, Fla., is interested in locating vegetable cannery; will offer inducements and furnish some local capital.

Cars.-See "Mine Cars."

Casket Machinery and Materials.— S. G. Satterwhite Company, Henderson, N. C., wants machinery and material for making coffins and caskets.

Cereal Machinery. -C. E. Rhyne, care of Rhyne Roller Mill, Ozark St., Gastonia, N. C., wants information, etc., relative to machinery for manufacturing wheat musk and breakfast foods.

Clayworking Plant.—Bowle (Tex.) Chamber of Commerce, G. H. Harrls, secretary, is interested in locating plant to manufacture Devonshire, face and vitrified brick; also fireproofing and hollow blocks; will furnish information.

Coppered Wire.—United States Can Co., P. L. Wilson, buyer, Cincinnati, O., wants addresses of independent wire manufacturers; wants coppered wire for pail balls.

Cotton Duck.—Societe Anonyme Hongroise De Banque Et De Commerce, Succursale De Smyrna, Smyrna, W. Turkey, Asia, wants to correspond with manufacturers of cotton duck.

Crushing Machinery.—J. W. Marshall, West Point, Va., wants new or second-haud machine to crush oyster shells; five tons per hour capacity.

Culvert Construction.—Duval County Commissioners, Jacksonville, Fla., will receive bids until 10 A. M. December 6 for furnishing and placing six-foot diameter corrugated iron culvert on New York Ave. near county line; also until same date for furnishing and erecting complete two reinforced concrete culverts 24 feet long over Trout Creek at Dinsmore, on Kings Rd. Plans and specifications may be obtained from Gall L. Barnard, County Engineer; bids to be addressed to C. W. Ellis, chairman of board.

Derrick, etc.—Southern "Sand & Gravel Co., Fredericksburg, Va., wants derrick, complete, boom 60 to 70 feet long, fitted to operate 1½ cubic yard clamshell bucket; guy or stiff leg; only new ropes desired, and prices to state whether ropes are included; also wants three 1 to 1½ cubic yard automatic dump buckets or skips. State time of shipment.

Dredge.—F. O'Brien, 1504 Real Estate Trust Bidg., Philadelphia, Pa., wants 10 or 12-Inch suction dredge complete; for use in sand, and capable of discharging material 2400 feet; prices not to exceed \$7000. Send specifications.

Drilling Equipment.—J. H. MacLauchlan Engineering Co., 205 W. Lombard St., Baltimore, Md., wants second-hand diamond core drill outfit for drilling up to 150 feet; diameter of core immaterial.

Drill.—Kanawha Brick Co., Charleston, W. Va., wants hand-power drill to work in clay and shale (no rock); to drill hole of good size.

Dryklin.—Fayetteville Woodenware Co. Fayetteville, N. C., wants prices on new of second-hand dryklin.

Drykiln.—W. D. Zimdin, Vladivostok, East Siberia, Asia, wants estimates and sketches of dryklin for both soft and hard wood (aspen, linden and oak), barrel staves and box stock; daily capacity 2000 cubic feet in soft wood and 500 cubic feet in hard wood up to a maximum thickness of one-half inch in both soft and hard wood; also desires information relative to drying hard wood of larger diameter as for hubs, gun stocks, etc.; quote prices via Japan ports; also time required for delivery f. o. b.

Electrical Machinery.—See "Mining Machinery."

Electrical Machinery.—Deep River Chalr Co., Randleman, N. C., wants secondhand generator, with switchboard and exciter; 37½, 50 or 60 kilowatt, 2200 volt, 60 cycle, 3 phase, revolving field.

Electrical Machinery.—Burtch Investment Co., 1200 Grand Ave. Temple, Kan-as City, Mo., wants information, etc., relative to electric time switch sufficient to carry two adjoining buildings, lighting seven hallways, Electroplating Machinery.—See "Sil-

Engine.-J. W. Marshall, West Point, Va., wants 35-horse-power steam engine.

Engine.-Protective Cap Co., Royston, Tex., wants prices on engine.

Engine.—J. H. MacLauchlan Engineering Co., 205 W. Lombard S., Baltimore, Md., wants second-hand 150-horse-power engine; tandem compound preferred, but will consider other type.

Gasoline Motors. - See "Motor Cars."

Grinding Machines.—Decatur Cornice & Roofing Co., New Decatur, Ala., wants portable and stationary grinding machines.

Hardware.--See "Screws and Nuts."
Heating Plant.--School directors No. 16

school district, Lebanon, Tenn., want prices on steam-heating plant.

Iron. — Proposals received at Bureau of Supples and Accounts, Navy Department, Washington, D. C., until 10 A. M. November 28, and opened immediately thereafter, to furnish at Navy-yard, Charleston, S. C., a quantity of pig-iron. Applications for proposals should refer to schedule 4077. Blank proposals furnished upon application to navy pay office, Charleston, S. C., or to bureau. T. J. Cowie, Paymaster-General, U. S. N.

Land Clearing.—Swan Creek Orchard Co., Berlin, Md., wants to place contract for clearing several hundred acres of land at price per acre.

Machine Tools.—See "Air Compressor, etc."

Mattress Machinery.—S. G. Satterwhite Company, Henderson, N. C., wants machinery and materials for mattress making.

Metal Work.—Proposals received at office of Lighthouse Inspector, Baltimore, Md., until December 15 for furnishing metal work and for erection of Thimble Shoal lighthouse, Virginia, in accordance with specifications, copies of which, with blank proposals and other information, may be had upon application to Commander H. C. Poundstone, U. S. N., retired, inspector.

Metal Workers. - See "Automobil Doors."

Metal-working Machinery.—See "Sllver-plating Equipment."

Mine Cars.—R. F. Watson, R. F. D. No. 1, Box 46 B. Elkton, Va., wants prices on contractors' two-yard, two-way dump cars; to be loaded by hand in mine; delivered Shenandoah, Va. State gauge.

Mining Machinery.—Black Mountain Coal Co. of Burchfield, Ky., office address at Barbourville, Ky., wants prices on electric mining machinery. including boilers, generator, etc.; 100 kilowatt, direct current or alternating current. Address H. E. Bullock, general manager, Pineville, Ky.

Mining Machinery.—Triton Silica Mining & Manufacturing Co., Tarpon Springs, Fla., will open bids January 1 on silica mining equipment, including anger washers, screens, dryers and automatic elevators.

Mixers.—Frank B. Wilhart, manager Bay Minette Concrete Co., Brewton, Ala., wants catalogues and prices on mixers.

Motor Cars.—Edgar M. Graham, consulting engineer, Muskogee, Okla., wants to correspond with manufacturers of gasoline motors for heavy freight and passenger interurban service.

Naval Supplies.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. November 28, and opened immediately thereafter, to furnish at Navy-yard, Norfolk, Va., a quantity of naval supplies as follows: Schedule 4069, rivet and bolt-forging machine, portable pneumatic geared hoists; schedule 4075, man
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475, marine glue, pine-tar oil; schedule 476, coaling trucks, steam-jacketed kettles, boat chains; schedule 4078, crucibles, scoop shovels, graphite and grease, mineral lubricating grease. Applications for proposals should designate schedules desired by number. Blank proposals furnished upon application to navy pay office, Norfolk, Va., or to bureau. T. J. Cowie, Paymaster-General, I. S. N.

Paper-making Machinery.—Red Cedar Kildust Factory, Christiana, Tenn., wants information on paper manufacture and prices on machinery.

Paving.—City Council, Beaumont, Tex., will receive bids until 10 A. M. November 21 to pave Calder Ave. and Washington St. with cresoted wooden blocks on concrete foundation: concrete curbing; about 2181 square yards paving and 726 linear feet curbing; specifications on file with C. L. Scherer, City Engineer; certified check \$500; J. G. Sutton, city Secretary.

Paving.—Duval County Commissioners, F. J. Hyde, chairman, Jacksonville, Fla., will receive bids until 10 A. M. November 24 for paving portion of Atlantic Blvd. from city limits of South Jacksonville for 6000 feet easterly with asphalt macadam and vitrified brick. Information and specifications can be had on application to Gall F. Barnard, County Engineer: certified check \$750.

Planing Mill.—O. C. Everett, Sylvania, Ga., wants to purchase planing mill and gang edger.

Pipe. — Tar River Lumber Co., Rocky Mount, N. C., wants 800 to 1000 feet 2½ inch water pipe.

Piping. - Fayetteville Woodenware Co., Fayetteville, N. C., wants prices on inchaping.

Poles, etc.—Industries Light & Power Co., Alexander City, La., wants 400 poplar or juniper poles 30 feet high, six to seven-inch tops; give quotations delivered; also wants prices on plus and crossarms.

Pulverizing Machine.—Red Cedar Kildust Factory, Christiana, Tenn., wants prices on machine to pulverize rock very fine.

Pumping Engine.—City of Erie, Pa., will receive sealed proposals for triple-expansion crank and flywheel pumping engine of 20,000,000 gallons capacity, in accordance with specifications of Chester & Fleming, hydraulic engineers, Pittsburgh, Pa.

Pumping Engine.—Proposals received by city of Muskogee, Okla., until 10 A. M. December 5 for furnishing and erecting upon foundations to be furnished by bidder 6,000,-90-gallon horizontal high-duty crank and flywheel pumping engine, to operate against 20 feet total head; usual rights reserved; certified check for 10 per cent. amount of proposal to accompany each bid. Specifications can be seen and secured at office of Alexander Potter, consulting engineer, 114 Liberty St., New York, or at office of City Engineer, Muskogee; E. H. Fleming, Commissioner of Water and Sewers.

Pumping Machinery.—Protective Cap Co., T. E. Hoffman, secretary, Royston, Tex., wants prices on pump machinery.

Punch Press.—Mebane Iron Bed Co., Mebane, N. C., wants small second-hand power punch press.

Rails.—National Railway Equipment Co., 1122 McCormick Bldg., Chicago, Ill., wants 99 tons 50-pound relaying rails (in vicinity of North Carolina preferred) for immediate delivery; will also want about same quantity on April 1, 1912.

Raiiroad Equipment.—W. W. Boxley & Co., Roanoke, Va., will want standard-gauge equipment for contract work of lining tunnels in Virginia and West Virginia with re-inforced concrete. (See "Virginia," under "Miscellaneous Construction.")

Railway Construction Materials.— Shades Cliff Land Co., 2014 First Ave., Birmingham, Ala., wants prices on copper bonds, trolley wire, overhead material, poles (creosoted) and ties.

Reinforced Concrete.—School directors No. 10 school district, Lebanon, Tenn., want prices on reinforced concrete.

Road Construction.—Tallapoosa County Commissioners, Dadeville, Ala., will receive bids until 1 P. M. December 1 for grading and draining 11 miles of road from Dadeville to Miler's Bridge; certified check \$250; detailed information can be obtained from James R. Hall, engineer, Dadeville.

Road Construction.—State Highway Commission, Richmond, Va., will receive bids until noon November 27 for construction of about one mile of macadam road on 2d Street Rd., about two miles from Richmond. Plans and specifications may be obtained at office of State Highway Commission or of clerk of Henrico county; certified check \$100. For

further information address P. St. J. Wilson, State Highway Commissioner.

Road Construction. — Marion County Commissioners, Hamilton, Ala., will receive bids until noon December 21 for grading, draining and surfacing with gravel 2½ miles of State-aid road; bids will be received at same time for continuing road 11 miles farther; certified check \$500; W. S. Keller, State Highway Engineer.

Road Grading.—Duval County Commissioners, Jacksonville, Fla., receive bids until 10 A. M. December 6 for grading New York Ave. from near Yukon to county line at Orange Park; until same date for grading Kings Rd. from Dinsmore, Fla., to county line; specifications and data on application to Gail L. Barnard, County Engineer; bids to be addressed to C. W. Ellis, chairman of board.

Saws, etc.—Bainbridge Construction Co., Bainbridge, Ga., wants to correspond with manufacturers of feed and drag saws and power wood splitters.

Scales .- See "Weighing Machinery."

Screws and Nuts.—Southern Machine Works Co., 208 E. Commerce St., High Point, N. C., wants piano stool screws and nuts in lots of 1000 or more.

Seating.—E. H. Wrenn, Box 222, Mt. Airy, N. C., wants circular veneered oak pews for church building.

Shells.—Proposals received at Bureau of Supplies and Accounts, Navy Department, Washington, D. C., until 10 A. M. November 28, and opened immediately thereafter, to furnish at Navy-yard, Washington, D. C., a quantity of tube shells, etc. Applications for proposals should refer to schedule 4074. Blank proposals furnished upon application to bureau. T. J. Cowle, Paymaster-General, U. S. N.

Sewer and Water Pipe.—City of Columbia, S. C., will receive bids at 10 A. M. November 28 for laying about 2640 feet eightinch sewer pipe and 3200 feet six-inch water pipe; F. C. 'Wyse, engineer-superintendent; W. F. Stieglitz, council superintendent.

Sewer Construction. - See "Water-works."

Silica.—Tampa & Tarpon Springs Land Co., D. F. Conoley, president, Tampa, Fla., wants to correspond relative to submitting samples of silica earth for analysis.

Siver-plating Equipment.—Standard Silver Co., 33 Hayter St., Toronto, Canada, is interested in equipment for new factory manufacturing silver-plated hollowware (on Britannia metal, brass, German silver and conner).

Steel Discs.—American Foundry & Supply Co., Glen Rock Station, Asheville, N. C., wants addresses of manufacturers of steel discs for agricultural implements.

Steel Convict Cage.—Cumberland county, North Carolina, will buy 12-man portable steel convict cage. Address R. H. Buckingham, Fayetteville, N. C.

Stone Crushing.—Crusher, care of Manufacturers Record, Baltimore, Md., wants to place contract with contractor having portable stone crusher to crush about 2000 perchnear Baltimore; stone will be furnished.

Store Fixtures.—H. H. Simmons & Sons, Tylertown, Miss., want prices on store fixtures, including shelving and display coun-

Tank .- See "Air Compressor, etc."

Veneer Drums.—Red Cedar Kildust Factory, Christiana, Tenn., wants prices on veneer drums; 100, 200 and 300-pound sizes for packing sweeping compound.

Water Pipe. See "Sewer and Water Pipe."

Water-works.—Sealed bids received by Board of Trustees, Bennington, Okla., until 8 P. M. December 15, and opened and publicly ready immediately thereafter, for furnishing labor and materials for construction of water-works, including pumping equipment, tank and tower, about 3300 feet six-inch cast-iron class A pipe, 2400 feet six-inch cast-iron class A pipe, 14 hydrants and all necessary specials. Copies of plans, specifications, proposal forms, etc., may be had from Jesse Sipes, Town Clerk, or from Nagel & Peterson, engineers, Muskogee, Okla., on deposit of \$10; certified check for \$1000 to accompany bids; rights reserved.

Water-works. — Proposals received by city of Clarksville, Tenn., until 2 P. M. December 4 for construction of reinforced concrete sedimentation basins, clear-water reservoirs, filter tanks and pumping station; plans and specifications, forms of proposals, etc., may be had upon application to superintendent of water department on deposit of \$15; usual rights reserved; S. J. Lowe, superin-

tendent water department; Dabney H. Maury, consulting engineer.

Water-works. — Proposals received by Board of Water Commissioners of Charlotte, N. C., at office of clerk, until 8 P. M. December 7, for building pumping station and intake, including laying of about 160 feet of 36-inch pipe in rock trench; plans and specifications on file at office of clerk and at engineer's office in Charlotte; copies of specifications, form of proposal, etc., furnished on deposit of \$5; certified check for \$2000; usual rights reserved; A. H. Wearn, clerk; Gilbert C. White, engineer.

Weighing Machinery.—The Business Bourse, 260 Broadway, New York, wants (for customer) a machine to weigh coal and water.

Wire Stretcher.—L. B. Kelly, Box 33, Colquitt, Ga., wants to correspond with manufacturers relative to manufacturing wire stretcher.

Woodworking Machinery.-See "Planing Mill."

Woodworking Machinery.—See "Saws, etc."

Woodworking Machinery. - Fayetteville Woodenware Co., Fayetteville, N. C., wants prices on new or second-hand headers, etc.

Woodworking Machinery.—See "Casket Machinery, etc."

INDUSTRIAL NEWS OF INTEREST

Wilmington Iron Works' Storage Annex.

The recently-burned Lingo box plant will not be rebuilt, but the space will be used as a storage annex for machinery and structural steel, for which additional space is needed, by the Wilmington Iron Works, Wilmington, N. C.

The Architectural Marble Co.

The former Sims Stone Company of Mobile, Ala., has been taken over by the Architectural Marble Co. of that city. This company handles foreign and domestic marble, granite and stone of various kinds, and also acts as contractor for stone work. Chas. L. Lawhon is president and treasurer.

The Fort Worth Branch of the Wesco Supply Co.

A new brick building with 20,000 feet of floor space is now occupied by the Fort Worth (Tex.) branch of the Wesco Supply Co. of St. Louis. A large stock of electrical equipment is carried in this building, and the local manager, R. S. Wakefield, estimates that its business will amount to \$350,000 for the year.

Mottu & Co.'s New York and Paris Offices.

The investment firm of Mottu & Co. of Norfolk, Va., has established the firm of Mottue & Cie at 224 Rue de Rivoll, Paris, France, and also a branch office in the Knickerbocker Trust Bidg., New York city. The Norfolk firm was established in 1892 and has been identified with many important operations in Virginia.

Expansion of a Fort Worth Plant.

One hundred feet of ground adjoining the present plant of the Enterprise Iron Works. Fort Worth, Tex., has been purchased for use in building additions to the plant. This company began business in 1900 with a capital of less than \$25,000. The yearly business now averages \$25,000 and extends to all parts of Oklahoma and Texas. W. H. and J. A. Horrell are the proprietors.

Public Sale of Planing Mill.

A planing mill, with all buildings and equipments, including a Moore dry kiln, an 80-horse-power steam engine and bollers, planers, resaws, gang edger, lumber trucks, blow-pipe system and cut-off saw, with shaftings, pulleys, belts, etc., will be sold at public auction December 5, 1911, at the courthouse, Augusta, Ga. Full information may be obtained by addressing C. V. McAuliffe, trustee in bankruptcy, Augusta.

The Peters-McKinney Electric Co.

The Peters-McKinney Electric Co., one of the oldest electrical contracting firms in Atlanta, has recently moved to new quarters at 25 Fairlie St. It has recently been awarded several important contracts, including the electrical work in the Williams-Hartseck Company's apartment-house and in the \$60,000 shop building for the Georgia School of Technology. The members of the firm are expert electricians and are making extra efforts to secure new business to be handled with their added facilities.

The Broderick & Bascom Rope Co.'s Expansion.

The Broderick & Bascom Loggers' Supply Co. has been organized with headquarters at Seattle, Wash., and branches at Portland, Ore., and Aberdeen, Wash. This company will be the Pacific Coast representative of the Broderick & Bascom Rope Co. of St. Louis. Harvey J. Bailey, who is connected with the St. Louis office, will go to Seattle as treasurer of the new company. The Broderick & Bascom Rope Co. has a factory at Seattle. This company manufactures among its products the well-known "Yellow Strand" power steel wire rope.

Hydro-Electric Power Available for Lease.

The Gonzales Water Power Co., Gonzales, Tex., has an available electric power production capacity above that already in use for about 500 horse-power, which it desires to lease. Gonzales is a town of 4000 inhabitants, with two railroads, and is located within 60 miles of the capital of the State, within 60 miles of the Texas coast, and about 140 miles west of Houston. The present manufacturing interests consist of a inick piant, water-works, electric-light plant. a cotton mill, gravel beds and other building material supplies at hand, and ample electric power.

Godfrey Mosnic Tile Co.'s Contracts.

The Godfrey Mosaic Tile Co. of Atlanta has been awarded contracts for tiling work for the swimming pool, walls and floors of the \$60,000 alumni building of the University of Georgia at Athens; for the tile, marble and terrazzo work in the improvements costing \$100,000 at the Grady Hospital, Atlanta; for the terrazzo and marble work for the \$60,000 shop building for the Georgia School of Technology, Atlanta; for the terrazzo and marble work in the 10-story building of the Georgia Life Insurance Co. at Macon, and for the terrazzo and tile work for the \$75,000 First National Bank Bidg, at Quitman, Ga. This company has recently added a complete line of mantels to its line of supplies.

The Milwaukee Concrete Mixer & Machinery Co.'s Expansion.

Expansion both in plant and capital has been effected by the Milwaukee Concrete Mixer & Machinery Co. of Milwaukee as a result of a large volume of business done in the past year. This expansion is also made to provide facilities for the continuation of increasing business. A large plant and equipment have recently been purchased, which will be used for the manufacturing of Miwaukee mixers. Additional capital has been secured, and A. G. Bodden has become an active member in the capacity of secretary and treasurer. W. J. Roseberry, Jr., formerly vice-president and secretary, is now president and general manager.

The Dagostin & Angelini Bros.' Contracts.

In addition to the long list of examples of their work which are easily accessible to the public for inspection, including mosaic and tile work in many buildings in Mobile, Montgomery and other cities, in several postoffices and courthouses in different parts of the South, in banks, hotels, etc., the Dagostin & Angelini Bros. of Montgomery, Ala., and Atlanta, Ga., have recently closed the following contracts: For all floor and wall tiles of the new eight-story Hilisboro Hotel, Tampa, at \$475; for the interior marble, tile and terrazzo floors of the 10-story office building for the Citizens' Bank & Trust Co., Tampa, at \$19.130, and for the interior marble work of the United States postoffice at Hope, Ark., at \$1700.

Jeffrey Manufacturing Co.'s Branch Offices.

Thirteen branch offices of the Jeffrey Manufacturing Co., Columbus, O., are maintained in the principal cities of the United States, including Birmingham, Atlanta, Charlestou, W. Va., and St. Louis, and 100 agencies are located in the leading commercial centers of the world. This extensive manufacturer of mining, elevating, conveying and power-transmission machinery and coal-mine equipment, has recently opened a branch office in the American Bank Bidg., Seattle Wash. Percy E. Wright, the manager of the Seattle, office, has been connected with the home office for the past 10 years, traveling in this Northwest section of the country, and is thoroughly conversant with the territory to be reached through the Seattle office.

Increasing Business of the Texas Rolling Mill Co.

The Texas Rolling Mill Co., Fort Worth, Tex., has increased its capital stock from \$175,000 to \$300,000, all of which has been taken by business men of that city. Since February last the company has put in a new Belgian mill at a cost of \$12,000, two waste heat boilers at a cost of \$5000, added a new electrical department at a cost of \$6000, and put in rail-cutting machine and Faggot ma chine, made in its own shops, at a cost of \$15,000. The capacity-has doubled since last year and sales now average \$25,000 a month. The plant has a 30-acre site. The total assets are placed at \$600,000 and the land and physical properties are valued at \$231,131. sets are piaced at \$690,000 and the fand and physical properties are valued at \$231,131. George*W. Armstrong is president, William Capps vice-president and treasurer, and C. B. Smith manager and general superin-

Burroughs' Railway Nut Lock.

Sales of Burrough's railway nut locks, manufactured by the May & Turner Company, Atlanta, to many of the railroads of this country, including the Seaboard Air Line Railway, the Long Island Railroad, the Atchison, Topeka & Santa Fe Railroad, the Kansas City Southern, the Lehigh Valley, the Delaware, Lackawanna & Western, the Louisville & Nashville, the Chesapeake & Ohio, the Erle and many others, indicate the practicability and value of this equipment. The lock consists of a flat piece of Sales of Burrough's railway nut locks, The lock consists of a flat piece iron with square upset surfaces where the nuts take against it, and is so made as to be laid on the ties and slipped under the nuts after the bolts have been secured in The nut-lock plate is secured to the ties by the same spikes that secure the rail at that point. American ingot iron is used in making these nut locks on account of its st-resisting qualities. They are also made of open-hearth steel when so desired.

Transfers Engineering Office from New York to Kansas City, Mo.

That the development of construction and mechanical work in the South and South west is attracting civil and mechanical en gineers and others interested in such opera tions is frequently attested by the transfer of the business of consulting engineers to those sections or the establishing of branch offices of large contracting and construction companies in the principal cities of the South and Southwest. An instance of the change of an office is afforded by E. S. Farwell, consulting engineer, who has trans-ferred his office from 309 Broadway, New o the Grand Avenue Temple, His 13 years of engineering work In New York city enables him to offer expe aced services as consulting engineer for struction work, the design of factories, power plants, heating and ventilating sys tems, and also for making investigations and reports upon new projects or upon the enomic improvement of existing plants.

J.-M. Asbestos Roofing.

The current number of the "J-M Roofing Salesman" is largely devoted to illustrations of the many different classes of buildings that have been covered with J-M asbestos roofing. A particularly interesting illustra-tion is that of the Birmingham (Ala.) plant of the American Steel & Wire Co. These buildings are now covered with about 10 acres of J-M asbestos roofing. Another illustration shows the plant of the Republic Stamping & Enameling Co., Canton, O., which company has used this roofing on both flat and saw-tooth roofs for over 12 years and has just contracted for 600 squares for new buildings. Illustrations of several Cleveland (O.) buildings are shown, includ-ing the municipal market building, the Col-linwood memorial school, the Episcopal linwood memorial school, the Episcopal church and the buildings of the National Other Illustrations are of the League Park. Union Depot, Columbus, and a large agricul-tural storage warehouse at Mars Hill, Maine.

The American Blower Co. in Canada.

Application has been filed for a charter or the Canadian Sirocco Co., Ltd., of Wind-Ont., which is to be the Canadian branch of the American Blower Co. of De troit. This company has a factory in Troi as well as in Detroit, and has branch office various business centers of the world. The Canadian Sirocco Co. has acquired from the city of Windsor a tract of land of 4½ acres on the railway line, and will proceed at once with the construction of a complete manufacturing plant. This company will hold exclusive patent rights for the manu-facture in Canada of "Sirocco" fans and blowers, which are extensively used throughwill out the world for producing mechanical draft in boilers, for mining ventilation, for heating and ventilating plants in public uildings, schoolhouses, factories and stores, The company will manufacture the full line of the American Blower Co.'s products. of the American Blower Co.'s products, consisting of fans, blowers, steam engines, steam traps, heating, ventilating and drying apparatus, etc.

The Petroleum Iron Works Co.'s Quick Delivery of Material.

The contract for a tank of 55,000 barrels capacity, 114 feet 6 inches in diameter, 30 feet 4 inches high, was recently awarded to the Petroleum Iron Work Co. of Sharon, Pa., conditions requiring prompt filling of ter for the material and construction tank. The order was from the United of the tank. States Asphalt Refining Co. at Curtis Bay, South Baltimore. All of the material was finished, loaded on the cars and shipped from the company's works in one day after the order was given. The gang of workmen was ready to construct the tank as soon as the material arrived. This remarkably expeditious work indicates the preparedness of this company to handle large orders on short notice and shows the effectiveness of its or anization and method of handling busin The Petroleum Iron Works Co. fabricates and builds every variety of light and heavy t-metal structure, including table, hery equipment, water towers, smoke-ks, penstocks, blast furnaces, boilers, soting cylinders, fuel-oil burners, autosheet-metal structure, including tanks, oil matic oil and gas separators, etc. offices of the company are located in New York, St. Louis and Houston, Tex.

The Triumph Electric Co. Working to Full Capacity.

The Triumph Electric Co., Cincinnati, manufacturer of the "Triumph" electric-light and power machinery, is enjoying a period of marked prosperity, the shops be The resumption of night work been found necessary in order to complete several important contracts. This increased business includes the demand for the alter-nating-current generators and transformers which the company recently placed upon the t. The recent sales in this line in a 100-kilowatt generating set for Miller Bros., Chattanooga; a 100-kllowatt three-wire generator and nine motors, aggregating 100 generator and nine motors, aggregating 100 horse-power, for the Huttig Sash & Door Co., St. Louis; two 50-kilowatt direct-current generators for Swift & Swallow, Pekin, China; one 35 K. V. A. turbo-alternator for B. F. Sturtevant & Co., Hyde Park, Mass.; one 50 K. V. A. alternating-current and one 50-horse-power direct-current generator for 50-horse-power direct-current generator for the Commercial Electric Co., New Orleans, La.; 16 direct motors, aggregating 210 horse-power, for the Samuel Cupples Envelope Co., St. Louis, and many others in various parts of the country. In addition to these generators, 35 transformers of various sizes have

The Dodge Manufacturing Co.'s Exhibit at Boston.

One of the interesting features of the cent exposition held in Boston to exhibit New England products was a department the primary idea of which was to show devices for insuring safety to life and limb in manufacturing plants. Four well-known concerns, leaders in the use of these devices, were invited to take part in this display. These were the Dodge Manufacturing Co. of Mishawaka, Ind.; the Otis Elevator Co. of New York, the Norton Company of Wor-cester, Mass., and the United States Steel Corporation. In the Dodge exhibit were Corporation. solid and split clutches showing the facility with which the power in various depart-ments of manufacturing plants may be cut off in case of accident without delaying to word to the engine-room to shut down ngine. Iron center wood rim pulleys of various types were shown and attention called to the fact that they might be run at belt speeds as high as five and one-half miles a minute without danger of explosion. Collars, flanges, keyless and Collins couplings were shown and attention pointed to the fact that all setscrews and bolt heads were below the periphery of the fixtures in order to prevent catching clothing, thereby adding greatly to the safety of working in

A Quick Restoration of Teleph Service.

The Hawthorne (Ill.) factory of the Western Electric Co. was recently called upon by long-distance telephone to make a hurry-up shipment for a complete telephone exchar outfit to replace the one destroyed by fire the Missouri and Kansas Telephone Co Fairmount exchange in Kansas City, Mo. The company responded by sending forward

the necessary apparatus by express the evening of the day on which the fire occurred, thus supplementing without delay the work which was being done by the Kansas City in rushing material to the building In which the new exchange was to be housed. The new switchboard equipment consisted of several sections from the telephone comseveral sections from the telephone com-pany's stock and some from an addition which was to be installed at another exhange. Twenty-six installers reported for york, and the new exchange was cut in for ervice just 98 hours after the fire with a change. full equipment of 800 subscribers' lines. Taking into consideration the fact that the work mg into consideration the fact that the work was done under high-speed conditions, in order that the subscribers might not be inconvenienced for an extended period, it is worthy of note that the trouble reports, regularly recorded as a matter of routine by the telephone company, indicate that the work of the Western Electric Co.'s installing force was so well done that a minimum of trouble was experienced after the new equip-

TRADE LITERATURE.

Nagle-Corliss Engines and Air Compressors.

The girder-frame Corliss engines, class "G." of 75 to 850 horse-power, manufactured by the Nagle Corliss Engine Works, Erie, Pa., are described and illustrated in catalogue No. 7; the class "H," of 17 to 110 horse-No. 7; the class "M," of 17 to 110 horse-power, in No. 9, and the class "A" and "B" air compressors in catalogue No. 15, issued by the company. Detailed descriptions of the parts of these engines, together with dinension tables and weights of each size, the horse-power developed at given steam pres-rures, etc., are included.

The Pittsburgh-Buffalo Company's

The various classes of coal mined and sold y the Pittsburg-Buffalo Company, Pitts-urgh, are described in a pamphlet recently sued by this company under the title of Brief Statements Concerning the Jones Interests Which Were Founded in 1876 at Pitts-burgh, Pa." It contains special price-lists of the coals from the different mines of this company and may be obtained by coal users company and may be obtained by coal users on request to the company. Coals listed in this pamphlet are the "Brilliant" Ohlo coal, "Dorothy," "Freeport," "Youghiogheny" and "Annabelle" coals. The prices noted are effective to February 15, 1912.

Edwards' Metal Spanish Tile.

Detail descriptions and illustrations of Ed-wards' metal Spanish tile and Spanish cluster tile are given in the latest number Edwards' Metal Sheet, published by the Ed wards Manufacturing Co., Cincinnati. Views of a residence in San Angelo, Tex., having metal-shingle roof, and of a residence in Peru, Ind., roofed with Spanish metal tile, are shown. The plant of the American Tool Works Co., Cincinnati, is shown both before and after the application of Edwards' sheetmetal building material consisting of patent metal rock face "brick" and "stone" siding, galvanized cornice, window caps, etc. The improved appearance of this building is particularly striking.

Clark Wheels and Casters.

The noiseless rubber wheels and casters, wivel bracket casters with iron wheels, Clark's roller bearings for casters and wheels, etc., made by the Geo. P. Clark Com-pany, manufacturer of trucks and casters, Windsor Locks, Conn., are described and illustrated in a catalogue just issued. This catalogue contains dimension tables, and explanations of the particular type of wheel and caster, all in pact form. It is designated as a catalogue of "Clark Wheels and Casters," another catalogue of trucks and casters being pub-lished as catalogue No. 9. The New York office of this company is in the Park Row

Cortright Metal Shingles.

"Cortright Metal Shingle Advocate" recent issue contains a double-page illustrarecent issue contains a double-page flustra-tion of the school building at Lawrenceburg, Tenn., given to that city by Mr. J. H. Strib-ling. Plans and specifications were pre-pared by W. F. Hartman, architect and builder, Lawrenceburg. The building was builder, Lawrenceburg. The building covered with the Cortright galvanized slates, 10x14 inches, manufactured by the Cortright Metal Roofing Co. of Philadelphia and Chicago. They were put on by a Law-renceburg tinner and roofer. Another illus-tration shows the residence of P. C. Rollins tration sl of the Miller Hardware Co., Rutherfordton, N. C., which is covered with Cortright metal shingles.

The American "Fairhurst" Air Compressors.

The various types of American "Fairhurst" air compressors up to 12-inch stroke are scribed and illustrated in catalogue No. 1 issued by the American Compressor Work 26 Cortlandt St., New York. The America "Fairhurst" dry vacuum pump, the air-lift pumping system and "Fairhurst" air receiv-ers are also included. Twelve different classes of air compressors, together with tables of data applying to each and explana tions of the duties for which each is be adapted, are given under appropriate head-ings. Correspondence is invited from pros-pective purchasers and from those whose or or pumping requirements call for special kinds of air compressors or

Morse High-Speed Chain Drives The advantages of the convenience

plication, compactness, quiet action high speeds and efficiency of power mission obtained by the use of the silent chain drive are noted in bulletin No 11, which has just been issued by the More Chain Co., Ithaca, N. Y. Illustrations of construction details of the chain drive and also full-page illustrations of the chain in actual use are shown. It is stated that the "slient chain" may be considered a fiexible rack, designed so as to keep automatically in proper pitch contact with the sprockets. actual use It has a certain amount of elasticity due to the arched-shape links, which makes it de-sirable for general power transmission pur-poses. It engages the sprocket wheels over large arcs of the circumference, thus making the pressure on each tooth less than in the of geared wheels and producing h strain and wear on the gears.

"Little Giant" Rock Drills.

The distinctive characteristics of the "Little Giant" rock drills manufactured by the Ingersoll-Rand Company, 11 Broadway, New York, are described in catalogue 4003, recently issued by that company. The catalogue presents sectional views of the drills and shows them engaged in actual work on the Panama Canal and elsewhere. One of the principal characteristics of this drill is the positive character of the valve movements.

The valve gear is composed of three pieces, the valve, rocker and rocker pin. On account of the direct mechanical connection between the valve and drill piston, when steam or air is admitted to the cylinder the piston must move, and when the piston moves the valve is thrown, so that the operation of the drill is certain. The action of the drill is de scribed in detail in the catalogue, which also includes tables showing sizes and princip

Dennison's Christmas Specialties.

Ten years ago the Dennison Manufacturing Co., South Framingham, Mass., printed its first tag for Christmas use. The designs of the present day of Dennison Christmas tags are so many and of such artistic character that a special Dennison Christmas Book has been issued by the company to describe and illustrate them. In this book will be found illustrations of Dennison's Christmas gift decisings and holiday specialties for the correct packing, wrapping and marking of Christmas gifts; for the easy and effective decorating of tables, rooms and halls, and also a line of attractive and useful Christ-mas gifts. It is stated that in the stores of the Dennison Manufacturing Co., located in various cities throughout the country, may be found displayed the 7000 articles of home convenience made in the Dennison factory.

Thomas Elliptic Grate Bars

The Thomas Grate Bar Co., Birmingham, Aln., has issued a circular folder containing facts regarding the Thomas elliptic grate bars, together with illustrations and descrip as of the different styles, including the as rib, straight rib, rocker and the per-ated bars. Information of interest to forated bars. Information of interestrailroad officials regarding the use of grate bar in locomotives is included. A A list of a few of the prominent roads which are using these grate bars is given, including the Chesapeake & Ohio; the Richmond, Fredericksburg & Potomac; Tennessee Rall-road; Georgia Southern & Florida; Char-lotte Harbor & Northern and the Central of Georgia Railroad. It is stated that a nu ber of logging and mining railroads also us these grate bars in the locomotives. A list is given of about 500 users, of which 25 per A list cent. have given repeat orders, some as high as the seventh order

The Geary Water-Tube Boiler.

Additions, including a large modern boilet shop, recently made to the plant of the Oil

City Boil aced th enairing. time to t front rank clined tube let recentl estratio firebox set for use w ker, Taylo The superheate the larger these boile

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Two moto Harvester (patented ma the supervi altimore. bodies, rece from Baltin this type h carry mail routes, and packages. nets contain mail is place in the went can be easi postoffice wi stoffice wi ture has be

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City Boller Works, Oil City, Pa., have placed this company in a position to fill large orders promptly. It manufactures the Geary water-tube boller, which type has a record of 20 years for reliability, durability, economy and accessibility for cleaning and siring. Improvements in the details from to time have kept this boiler in the front rank of the box header type, with in-clined tubes and horizontal drum. A pamph-let recently issued contains descriptions and let recently issued contains descriptions and illustrations of this boiler with ordinary frebox setting, Dutch oven setting, settings for use with chain-grate stoker, Roney stoker, Taylor stoker and Jones underfeed stoker. The method of attaching the Foster superheater is also shown. A list of 320 of the larger companies using installations of these bollers is given.

The results of tests of Jones stokers as

hand-fired boliers are noted in the monthly magazine published by the Underfeed Stoker Co. of America, Harris Trust Bldg., Chicago. These tests include a run for 10¼ hours under the charge of an expert in Rochester, N. Y., and tests made by the Milwaukee Electric Railway & Light Co. at the Commerce St. power plant, Milwaukee. As a re-sult of these and other tests it is found that the claims of this company as to the saving in fuel made by using Jones stokers are well within the limits of maximum saving. They are guaranteed to save at least 10 per cent. al consumed as co mpared with ordinary Jones stokers is included in the publication, and it is shown that 50 per cent. of the total horse-power sold was for repeat orders, in-dicating the satisfaction obtained from the The Jones Underfeed Stoker,
the results of tests of Jones stokers as appared with the results obtained from the original orders. These stokers have been attached to the furnaces in the city hall at Richmond, Va., with the result that the example of a "smokeless" chimney has been set and also a saving made in the fuel.

country, thereby dividing the expense for transportation between the individual farm-ers, who would pay for their hauling at so much per load. The Fischer Service Co. has been organized in Cincinnati somewhat on this principle, except that the hauling is for merchants and manufacturers instead of for farmers. This company contracts to furnish nine hours of uninterrupted delivery service each day to the merchants and manufactur-ers who accept its service for the hauling and delivery of goods. To carry out the plan the company has ordered 25 Speedwell motor trucks of four and five-ton capacity, manu factured by the Speedwell Motor Car Co., Dayton, O. It is believed that this service can be furnished at a profit to the hauling can be furni company with a considerable saving to the merchants and manufacturers for whom the work is done

White Motor Omnibus.

Lauth-Juergens 1912 Motor Trucks.

Motor trucks of one, two and three-ton ca-pacities with four cylinders, the one-ton truck with two cylinders, and made-to-order trucks of five, six and ten-ton capacities are described and illustrated in the catalogue of described and illustrated in the catalogue of the Lauth-Juergens Motor Car Co., Fremont, O. This catalogue refers to motor trucks of 1912 models. The construction of these trucks is described in 'great detail and speci-fications of each size and model given. The demand for a good two-cylinder truck made at a cost for which the four-cylinder ma-chine could not be manufactured has led this company to put on the market a one-ton two-cylinder truck in addition to its line of four-cylinder trucks. It embodies the same high grade of workmanship as is found in the four-cylinder models. The motor is of 24 horse-power and is powerful enough to pull a two-ton load under normal conditions. White Motor Omnibus.

The extensive use of the motor omnibus in shown, including special wire bodies for deforeign cities, the omnibus line on Fifth livery wagons, stake bodies, furniture-wagon

MOTOR TRUCK AND TRACTOR NEWS

The Cameron Car Co.'s Motor Trucks.

Three sizes of delivery trucks, in capaci-ties of 600 pounds, 800 pounds and one ton, ties of 600 pounds, 800 pounds and one ton, have been developed after 12 years of manufacturing experience by the Cameron Car Co. of Beverly, Mass. This company also builds six models of automobiles, from the two-passenger flyer to the five-passenger tourist car. Cameron patented transmission, which gives direct drive on every speed, is used on all its automobiles and trucks. The motor is air-cooled, has four cylinders, sizes giving from 20 to 36 horse-power.

Ford Delivery Cars in Chattanooga.

The increase in the use of motor trucks in the South is indicated by the sales that are ine South is indicated by the sales that are being made by many companies. Among the sales recently made are three Ford delivery wagons, delivered by the Ford Sales Co., Chattanooza, D. S. Ethridge, manager, to J. T. Owens of Owens & Estes, J. W. Glass of the J. W. Glass Furniture Co., and C. W. Howard, manager of the Citico Brick Co., all of Chattanooga. The machine purchased by Mr. Owen is the second one in use by his

Speedwell Motor Trucks.

The motor trucks built by the Speedwell Motor Car Co., Dayton, O., are made in feur and six-ton capacities. They are strongly made, with the view of standing al service under severe conditions of oft and rough roads in the summer and icy set and rough roads in the summer and rey pavements in winter. In a comparison made by a firm using horse-drawn wagons and a Speedwell truck, it was found that the-truck carried nearly double the load of the large two-horse wagon, made long trips in half the time and was ready for another trip when the horses had become tired out.

The Boenker Motor Plow Co.

The "one-man" motor plow, invented and atented by H. H. Boenker of St. Charles, Mo, has been designed for use on farms, in erchards, vineyards, etc., where the larger tractors and tractor plows cannot be conveniently operated. It is manufactured by the Boenker Motor Plow Co., St. Charles, Mo. It is a tractor as well as a plow, and with the plow detached will do the work of with the plow detached will do the work of the ordinary road tractor. It may also be used to run a threshing machine, a sheller, grinder or other belted machinery within its capacity of 24 horse-power. Two or more plows may be attached, as desired. The amount of land plowed, varying from five to eight acres per day, will depend on the num-ber of plows attached and the nature of the soil. It has been satisfactorily tested on It has been satisfactorily tested on heavy Mississippi River "gumbo" bottom land, considered one of the hardest tests liable to be required of a plow.

Gasoline Motor Mail Cars

Gasoline Motor Mail Cars.

Two motor cars built by the International Harvester Co. at Akron, O., and fitted with patented mail-car bodies in Baltimore under the supervision of Addison C. Thomas of Baltimore, the inventor of the mail-car bodies, recently made an experimental run from Baltimore to Philadelphia. The cars of this type have been especially equipped to carry mail matter for service on rural routes, and have ample accommodations for packages. The body is arranged with cabinets containing compartments in which the containing compartments in which the mail is placed in regular order and locked in the weatherproof casing. These cabinets can be easily removed and taken into the fice where they are filled. The body can readily dismounted and the chassis converted to use as a delivery truck. This fea-ture has been designed for the convenience

of private contractors for rural free delivery routes, who can use the trucks otherwise when not delivering mail.

Buick Motor Trucks in Macon. Ga.

The A. J. Long Cigar & Grocery Co., Macon, Ga., has been using two Buick motor trucks in its long-distance delivery service, and, although its horse-drawn delivery is still maintained, these trucks are also fre-quently used in short runs. This company has found the trucks entirely satisfactory and they are kept in constant use as nearly as possible. An interesting point in connec tion with the hauling service of this com-pany is that the delays at the railway depois are frequently so great that the waste of time is such that it is felt that high-priced trucks are too valuable to be thus delayed, and the company keeps these trucks running on distant service, while its horse-drawn vehicles are used to make the slow deliveries to the railroad freight stations. This is a tribute to the use of the trucks where effi-ciency is in order, and would indicate that some means should be found by which deliveries made to freight depots could be taken care of promptly by the receiving com

Possibilities of Transportation by Truck Trains.

possibilities of transportation of all kinds by motor-truck trains illustrated in the accompanying picture from "Power Wagon," Chicago, showing the operation of a train of this kind in Germany. Wherever good roads are built it is possible that ultimately there will be a development of freight transportation by motor-truck venience and of particular value in trans-trains in competition with or co-operation with railroads. The feasibility of the hand-ling of freight in this way, where no expen-



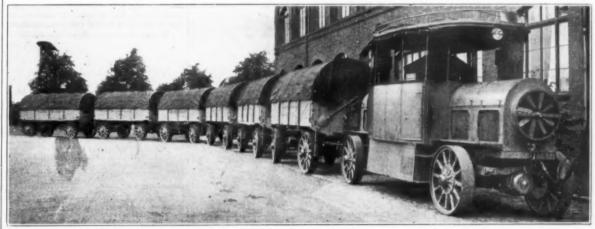
THE WHITE COMPANY'S MOTOR OMNIBUS.

Ave., New York, and the adoption of this i vehicle for general use in Chicago has at-tracted attention to the advantages of this convenient mode of travel.

The accompanying illustration shows the mnibus manufactured by the White Com-ony, Cleveland, which is in active use in hicago. Omnibus fares between railroad Chicago. Omnibus fares between railroad stations and the large wholesale and retail stores, hotels, etc., may range as low as five cents, and 10 cents is a usual rate for such service. This is found to be a great venience and of particular value in transbodies, and bodies for ordinary hauling purposes. Drawings and complete specifications will be furnished upon application for use in purchasing the five, six and ten-ton trucks.

The Armies of the World Using Motor Trucks.

A leading manufacturer of motor trucks is quoted as follows regarding the use of motor trucks for military purposes: "The armies in the different countries of the world are becoming thoroughly enthused with the use of motor trucks. In the French Army more than 100,000 men were furnished with provi-sions daily with only three motor trucks, which had to travel a distance of 26 miles in



TRACTOR AND TRAILERS IN TRANSPORTATION SERVICE IN GERMANY.

sive tracks are required, but where any good ; country road can be utilized, would seem open up apparently almost limitless possibili-ties for hauling freight, whether it be farm products, minerals or general merchandise. It appears to be quite possible to greatly in-crease the facilities of hauling farm products to railway shipping points or to nearby cities, either in active competition with rall-roads or in co-operation with railroads, by bringing freight to shipping centers. Such hauling might be done by organized local transportation companies, by which the large initial expense for the motor trucks or tractors and trailers could be borne, and the busiess of hauling extended to the surrounding

of the large stores of Chicago operate of buses especially for the convenience of their customers. Hotels in many cities maintain one or more of these omnibuses for the accommodation of their guests exclusively. The low rate of fare under which they may be successfully operated and the comforts afforded make them particularly advantageous even in small towns or for isolated hotels, health resorts, etc. There are many localities in the South for which they are well adapted. They are used in Chicago and New York on streets where regular trolley cars are not operated in order to afford reg-ular transportation facilities at low rates of

making the deliveries, and not once trucks fall them. The Italian War Department has ordered 600 trucks at a cost of \$1,200,000. Russia has appropriated funds to buy 2000 trucks and is authorizing the building of garages and repair shops. American manufacturers will no doubt get their share of this business." The same manufacturer, speaking with regard to the use of motor fire trucks, stated that "in fire-department work In five years you will find hardly a large city without fire apparatus mounted on motor-truck chasses. New York has appropriated \$1,000,000 to be expended for 100 outfits, which will do away with 1500 horses. The economy

[Continued on Page 74.]

EXTRACTS FROM

FIFTEENTH ANNUAL REPORT

OF THE

St. Louis and San Francisco Railroad Company

FISCAL YEAR ENDED JUNE 30, 1911.

To the Stockholders:

The Directors herewith submit their report of the operations and affairs of the St. Louis & San Francisco Railroad Co. for the fiscal year ended June 30th, 1911.

The results of operation for the fiscal year were as follows:

Operating revenue (increase \$1,993,288.32, or 4.8 per cent.)	.\$43,159,227 . 29,320,400	
Net operating revenue (increase \$1,349,730.51, or 10.8 per cent.)	.\$13,838,827	69 15
Miscellaneous income	\$12,027,000	54
Total income. Interest, rentals and other fixed charges.	.\$14,360,971 . 12,825,567	17
Net income after providing for all charges. Dividends paid—4 per cent. on first preferred stock.	\$1,535,404	10
Surplus carried to profit and loss	\$1,335,661	98

The increase in the average mileage operated during the year as compared with the preceding year was 116.14 miles, or 2.3 per cent.

 The main track mileage at June 30, 1911, was.
 5,227.37 miles

 The main track mileage at June 30, 1910, was.
 5,971.54 miles

 Showing an increase of.
 156.83 miles

This increase is explained as follows:

MILEAGE CONSTRUCTED.

Extension Whiteland, Tex., to Menard, Tex		miles
Marion-Hulbert Cut-off, Arkansas	5.49	miles

TRACKAGE UNDER CONTRACT.

Brady, Tex., to Whiteland, Tex. Irving, Tex., to Dallas, Tex. Dallas, Tex., to Paris, Tex.	10,5	0 miles
Total Increase		

On pages 76, 77 and 78 (pamphlet report) will be found details of the mileage of all the lines operated, owned or controlled by this Company.

CAPITAL STOCK.

There was no change during the year in the Company's Capital Stock, issued or outstanding.

FUNDED DEBT AND EQUIPMENT BONDS AND NOTES.

The outstanding funded debt at June 30, 1911, was	\$228,924,224 14,498,491	68 59
Total	\$243,422,716	27
Total	\$237,666,695	90
The net increase for the year was	\$5,756,020	37

Statements on pages 21 and 22 (pamphlet report) give in detail the changes in funded

t and equipment notes. The following equipment was purchased during the year:

EQUIPMENT.

EQUIPMENT.

1. Under Trust Agreements:
25 Consolidation Locomotives.
5 Pacific Type Locomotives.
10 Switching Locomotives.
6 Ten-Wheel Locomotives.
7 Mallet Locomotives.
2 Observation Cafe Cars.
3 Steel Underframe Combination Passenger and Mail Cars.
2 Steel Underframe Baggage Cars.
4 Steel Underframe Conches.
6 Gasoline-Electric Motor Cars.
250 Steel Frame Automobile and Furniture Box Cars.
250 Steel Frame Automobile and Furniture Box Cars.
250 Steel Frame Box Cars.
300 Steel Frame Automobile and Furniture Box Cars.
250 Steel Frame Automobile and Furniture Box Cars.
250 Steel Tank Cars.
500 Steel Frame Stock Dump Cars.
3. Purchased for Cash:
2 Brown Holots,
1 Ballast Sprender,
1 Boarding Car,
4 Box Cars,
1 Comissary Car,
2 Flat Cars,
2 Official Cars,
(Built at Company's Shops). Coal
Commissar,
Flat Cars,
Official Cars,
Refrigerator Car,
Scale Test Cars,
Stock Cars.

dditional equ
Mot

All of this additional equipment was received at June 30, 1911, with the exception of the six Gasoline-Electric Motor Cars and two Observation Cafe Cars.

On pages 40 and 41 (see pamphlet) of this report will be found statements showing the number of each class of equipment owned and leased.

CONSTRUCTION.

Reference was made in last year's report to the completion of the Marion-Hulbert Cut-off in that year-5.49 miles-but the track was not put in operation until July 1, 1911. This track is, by agreement, being operated jointly with the Chicago, Rock Island & Pacific Railway Co.

The Fort Worth & Rio Grande Railway was extended during the year from Whiteland, Tex., to Menard, Tex., 27.56 miles, and put in operation February 25, 1911. This new track is laid with 60-pound steel rail and 3000 crosstles to the mile. The maximum gradient 0.75 per cent., and the maximum curvature 3 degrees.

Agreements were made during the year with the Gulf, Colorado & Santa Fe Railwa Co. for the joint use of 11.78 miles of track between Brady and Whiteland, Tex., and for joint use of 100.50 miles between Dalias and Paris, Tex.; also with the Chicago, Rock Islan & Gulf Rallway Co. for the joint use of 10.50 miles of track between Irving and Dallas, Tex

NEW ORLEANS, TEXAS & MEXICO RAILROAD COMPANY.

This property was operated, and its accounts kept, separately.

Its outstanding funded debt at June 30, 1911, was \$26,000,600, and outstanding equipment trust notes, \$1,176,596,54.

The gross operating revenue for the fiscal year was \$3,737,716.32.

Political conditions in Mexico prevented the expected interchange of traffic via the Political conditions in Mexico prevented the expected interchange of traffic via the Brownsville gateway, and unforseen delays in the completion of necessary ballast and other construction work prevented through passenger train service from being undertaken unit near the close of the fiscal year (June 18). For these reasons this line could not be considered as in full operation until that time. In addition to interest on its indebtedness, the Company paid \$254,148.37 in rentals, leaving a deficit for the year of \$943,392.11, which for the reasons stated, has been included in the cost of the property.

The increase in its main track mileage for the year was 38.35 miles, and in side-track mileage, 23.56 miles. See page 78 (pamphlet report) for details of mileage of this line.

(This line extends from New Orleans through Houston to Brownsville, Tex., on the Mexican border, and is now operating 976.72 miles, including 183.34 miles under trackage rights.

rights.
Its strength is demonstrated by the noticeable development of traffic since the close
Its strength is demonstrated by the noticeable development of traffic since the close the fiscal year, gross earnings for three months ended September 30, 1911, showing an incres of \$219,640, or 26 per cent., over the same period in 1910.

The acreage planted in cotton in 1911, tributary to the Brownsville Line, was considered in the control of the control of

ably more than double that planted in 1910. Shipments of cotton from the Rio Grand

Walley in July were 6000 bales, against 700 bales last year.

Shipments of sugar will commence by December 1, and the increased acreage plants indicates a large increase in the movement of this commodity. It is expected that Louisian will have the largest sugar-cane crop in its history, and the present high price for sugar should result in very favorable conditions for that State.

There has been a marked increase in population along the line during the year. The settlers are principally farmers of means from the older agricultural districts and foreign countries who adopt the most improved methods.

The property is well constructed and in good operating condition. It has a low grade permitting of handling traffic promptly and economically. The terminal facilities are excellent, especially at New Orleans, Baton Rouge, Beaumont and Houston.

To take care of the increased traffic, additional equipment has already been contracted.

GENERAL.

The property of your Company has been well maintained during the year, expenditure for Maintenance of Way having been at the rate of \$1051.40 per mile operated; for repairs of locomotives, \$2671.69 per engine owned; for repairs of freight cars, \$62.79 each, and of passenger cars, \$727.76 each.

The percentage of locomotives in shop or awaiting repairs decreased 1.5, and the percentage of bad order freight cars decreased 3.06, as compared with conditions at the close of the reviews forced repairs of the reviews

of the previous fiscal year.

Increased rates of pay caused increased costs per train mile and per traffic unit mile for engine, train, yard and station service.

While freight revenue increased 1.5 per cent., freight train miles decreased 4.7 per cent.

While freight revenue increased 1.5 per cent., freight train miles decreased 4.7 per cent, and freight revenue per train mile increased 6.4 per cent.

Passenger train revenue increased 11.3 per cent., with an accompanying increase in passenger train miles of only 4.7 per cent.

The gross revenue per mile of road—\$8319.16—is the highest in the history of the Company. Two hundred and seventy-six industrial plants, costing approximately \$6,400,000 and employing over 6000 men, were located on the Company's tracks during the fiscal year. It is estimated by the Industrial Department of the Company that the tonnage producing capacity of these plants will exceed 59,000 carloads per annum.

Forty-eight and eighteen-hundedths miles of new industrial and side tracks were constructed during the year.

structed during the year.

The usual consolidated statements showing the balance sheet, income and profit and loss accounts and statistical data, including the figures of the Chicago & Eastern Illiands Railroad Co., will be found on pages 46 to 78 (pamphlet report). These statements are informs prescribed by the Interstate Commerce Commission.

Thanks are due to officers and employes, whose loyal service is heartily appreciated.

By order of the Board of Directors,

B. L. WINCHELL,

ST. LOUIS & SAN FRANCISCO RAILROAD LINES-INCOME ACCOUNT, FISCAL YEAR ENDED JUNE 30, 1911, COMPARED WITH PREVIOUS YEAR.

Average mileage operated	1910-11. 5,187.93	1909-10. 5,071.79	Amount. 116.14	P. et.	Amount.	P.ct.
Operating Revenue: Feight	11,999,385 31	10,548,969 83 1,009,241 56 1,134,904 37	1,450,415 48 977 05	1.5 13.7 0.1 18.2	\$14,710 31	1.3
Total transportation revenue. Revenue from operation other than transportation	307,600 83			4.8		
Total operating revenue	43,159,227 69	\$41,165,939 37	\$1,993,288 32	4.8	********	2444 0000
Maintenance of equipment	\$5,470,178 59 5,738,290 32 1,085,846 84 15,737,164 89 1,288,919 36 29,320,400 00	\$5,778,268 15 5,940,310 37 1,036,821 23 14,698,094 38 1,223,348 06 \$28,676,842 19	\$49,025 61 1,039,070 51 65,571 30 \$643,557 81	4.7 7.1 5.4	\$308,689 56 202,020 05	5.3
	13,838,827 69 1,811,827 15	\$12,489,097 18 1,458,185 96	\$1,349,730 51 \$53,641 19	10.8 24.3	*******	2 1 2 1 2 1 2 1 2 1 2 1
Operating income	12,027,000 54	\$11,030,911 22	\$996,089 32	9.0	*******	1111 2005
Miscellaneous Income: Hire of equipment Other income	\$323,649 85 2,657,611 58	\$609,988 27 2,910,416 99	\$286,347 42	46.9	\$252,805 41	8.7
Total miscellaneous income	\$2,333,970 73	\$2,300,428 72	\$33,542 01	1.5		***
Total income	14,360,971 27	\$13,331,339 94	\$1,029,631 33	7.7	********	1225 1225
Interest	7,850,606 63	\$7,447,805 63	\$402,801 00	5.4	********	EREC

Rentals an pividends Kansas

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ST. LOUI

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Capital Franchises Stocks and

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November 23, 1911.]		M	ANUF	ACTUR
ratidends on trust certificates, the	4,038 36 2,59 6,040 18 623	4,390 91 9,64 7,302 23 208,73		
Kansas City, Fort Scott & Mem- phis Railway. 54		0,400 00		
cago & Eastern Illinois Railroad 99 Total charges		9,380 77 \$616,18		85,000 00 0.5
Available for dividends \$1,53				
Dividends:		0,742 12		
Surplus carried to credit of profit and loss				
ST LOUIS & SAN FRANCISCO RAIL	ROAD LINI	ES-GENERAL	L PROFIT	AND LOSS
ACCOUNT AND ADJUSTMENTS T		UNE 30, 1910,	TO JUNE	30, 1911.
Balance at credit, as per annual report J	Credit. une 30, 1910.			.\$4,394,606 23
Surplus for the year ended June 30, 1911. Total Credit				. 1,000,001 00
	Debit.			
Proportion for the year of discount on sec Sundry adjustments not affecting current Total Debit			-	_
Total Debit				\$5,730,268 21
By Balance at credit June 30, 1911				
gt. Louis & San Francisco Railro Sheet, June 30, 1911, and co	OMPARISON			
Capital Assets.	Assets. 1911.	1910.	Increase.	Decrease.
Franchises and property	\$217,093,620 47 203,845 69	\$214,003,890 94 203,845 69	\$3,089,729 53	******
Total franchises and property	\$217,297,466 16	\$214,207,736 63	\$3,089,729 53	
Leasehold estate (the Kansas City, Fort Scott & Memphis Railway) Leasehold estate (Kansas City, Memphis & Birmingham Railroad)	58,964,291 92	58,642,263 69	322,028 23	********
Franchises and property, auxiliary com-	9,536,637 80 4,946,982 25	9,257,609 78 4,950,455 90	279,028 02	\$3,473 65
panies Chicago & Eastern Illinois Railroad Com- pany preferred stock (cost of)	9,321,550 00	9,321,550 00		
Chicago & Eastern Illinois Railroad Com- pany common stock (cost of)		18,239,187 13		
Total	\$318,306,115 26	\$314,618,803 13	\$3,687,312 13	
Current Assets:	\$1,413,934 17	\$1,568,910 29		\$154,976 12
Cash in hands of fiscal agents	3,620,880 98 5,024,816 64	4,198,950 17 6,348,000 00	**********	578,069 19 1,323,183 36
Due from railroad companies, account	719,267 90	634,268 59	84,999 31	36,222 68
traffic Due from companies and individuals Bills receivable	10,512 64 2,894,786 46 2,288,061 72	25,710 04 2,375,852 23 672,204 71	518,934 23 1,615,857 01	30,222 08
Due from U. S. Postoffice Department Securities in treasury	103,367 77 4,893,329 23	84,335 34 9,269,958 32	19,032 43	4.376,629 09
Supplies on hand	3,414,126 57 867,060 01	3,873,795 63 934,786 65		459,669 06 67,726 64
Total Deferred Accounts:	\$25,229,118 81	\$29,986,771 97	*********	\$4,757,653 16
Open carrying accounts in process of ad-	\$1,036,012 20	\$747,074 05	\$288,93S 15	
Discount on bonds, carried in suspense, to be charged out in annual instalments	11.590,239 26	9,788,690 67	1,801.548 59	
Trustees' sinking fund accounts	506,049 65 1,030 66	468,776 58 32,483 30	37,273 07	31,452 64
Total Assets.		\$11,037,024 60 \$355,642,599 70	\$2,096,307 17 \$1,025,966 14	
Note In stating the assets and liabi	lities of the	companies c	overed by the	his balance
sheet the holdings of the St. Louis & San stocks of leased and auxiliary lines are el Figures in italics denote credit.		tailroad Co. ir	the bonds	and capital
Capital Liabilities : Capital stock :	iabilities.			
First preferred	\$5,000,000 00 16,000,000 00	\$5,000,000 00 16,000,000 00		
Second preferred		29,000,000 00		••••••
Funded debt	171.453.554 68	\$50,000,000 00 *165,128,204 11	\$6,325,350 57	
Equipment bonds and notes Outstanding securities on leasehold estate (the K. C., F. S. & M. Ry.):	13,278,491 59	14,152,521 79		\$874,030 20
Stock : Preferred certificates	†13.510.000.0e	13,510,000 00		
Funded debtEquipment bonds and notes	44,301,000 00 1,220,000 00	\$43,668,300 00 1,548,000 00	\$632,700 00	\$328,000 00
Total ==	\$59,031,000 00	\$58,726,300 00	\$304,700 00	
Outstanding securities on leasehold estate (K. C., M. & B. R. R.).:				
Funded debt, auxiliary companies	\$9,246,670 00 3,923,000 00	\$9,246,670 00 3,923,000 00		
Preferred stock trust certificates (C. & E. I. R. R.). Common stock trust certificates (C. & E.	9,317,550 00	9,317,550 00		
Total	18,044,500 00	18,044,500 00 \$328,538,745 90	\$5,756,020 37	
Current Liabilities:				
Audited vouchers and payrolls	\$4,517,034 69 4,110,575 53	\$4,586,767 04 3,106,763 90	\$1,003,811 63	\$69,732 35
Taxes accrued (not due)	1,610,494 70 570,549 07 1,075,000 00	1,602,679 72 521,568 98 1,175,000 00	7,814 98 48,980 09	100,000 00
Bonds and notes called for redemption	*********	4,833,070 00	*******	4,833,070 00
(ore contra)	5,024,816 64	6,348,000 00 \$22,173,849 64	***********	1,323,183 86 35,265,379 01
	, , , , , , , , , , , , , , , , , , , ,		**********	\$5,265,379 01 1

	Provisional Accounts: Sinking funds accrued Equipment replacement fund	382,335 02	\$248,977 31 278,945 35	\$103,389 67	\$5,952 64
I	Improvement fund (K. C. & M. Ry. & Br. Co.)	6,759 37	7,475 27		715 90
I	Total	\$632,119 06	\$535,397 93	\$96,721 13	*********
	Grand total Liabilities		\$351,247,993 47 4,394,606 23	\$587,362 49 438,603 65	**********
1	Total	3356,668,565 84	\$355,642,599 70	\$1,025,966 14	*********
	*Excludes, in order to avoid duplication			Division bo	nds pledged

*Excludes, in order to avoid duplication, \$10,000,000 N. O. T. & M. Division bonds pledged as collateral to other liabilities included in "funded debt."

†Excludes \$1,490,000 of the K. C., F. S. & M. Ry, Preferred Stock Trust Certificates pledged as collateral to other liabilities included in "funded debt."

‡Excludes \$492,000 Memphis, Kansas & Colorado Railway Co. First Mortgage 7 per cent. londs maturing September 1, 1910, funds for redemption of which were held by Trustee. (Since paid.)

ST. LOUIS & SAN FRANÇISCO RAILROAD LINES.—FREIGHT TRAFFIC STATISTICS, YEAR ENDED JUNE 30, 1911, COMPARED WITH PREVIOUS YEAR.

	1910-11.	1909-10.	Increase.	Decrease.
Revenue per ton mile		\$,0098	\$.0007	*******
Revenue per ton		\$ 1.551 \$ 2.178	\$.088	*******
Revenue per train mile			\$.140	********
*Revenue per car mile	.118	\$.118	********	* 111,111,111
Revenue per mlle of road	5,410.98	\$5,450.91		\$ 39.93
Number of tons per train mile-	000.00	222.91		4.00
revenue freight	220.93	200.91		1.98
company freight	44.16	43.85	.31	*******
Number of tons per train mile-	0.07 00	0.00 50		4.40
all freight	265.09	266.76	4.144.111.24.4	1,67
Number of tons per loaded car				
mile-revenue freight	15.98	17.14	*******	1.16
Number of tons per loaded car mile-company freight	3.19	3.37		.18
Number of tons per loaded car				***************************************
mile—all freight	19.17	20.51		1.34
Number of cars per train-loaded	13.83	13.01	82	
Number of cars per train-empty	5.80	5.38	.42	*******
Number of cars per train-all	19.63	18.39	1.24	
Average haul per ton-revenue				
freight (in miles)	156.21	158.69		2.48
Average haul per ton-company freight (in miles)	131.08	141.87		10.79
Average haul per ton—all freight (in miles)	151.38	155.66	******	4.28
Density of ton miles, per mile of road—revenue freight	515.754	557.886		42.132
*Excludes caboose car mileage.				

ST. LOUIS & SAN FRANCISCO RAILROAD LINES,—PASSENGER TRAFFIC AND PER MILE OF ROAD STATISTICS, YEAR ENDED JUNE 30, 1911, COMPARED WITH PREVIOUS YEAR.

Passenger Traffic.	1910-11.	1	909-10.	In	crease.	Decrease
Revenue per passenger mile	.0237 1.0642	\$.0221 1.0130	8	0.0016 0.0512	*******
Revenue per train mile (excluding mail and express)	1.0844	8	.9951		.0893	
*Revenue per car mile	1,2770 .3341	3	1.1974 .3279	- 3	.0796 .0062	******
Revenue per mile of road (excluding mail and express)	2,312.94	\$2,	079.93	\$2	33.01	******
express)	2,723.59	\$2,	502.69	\$2	20.90	******
Number of passengers per train mile	45.73 14.09 44.88 4.07 97,544		45.01 14.83 45.81 4.53 94,067		.72 .14 3,477	.74 .93
Per Mile of Road.	-	-		1000	-	
Total operating revenue			116.65 654.19	4	92.51	\$2.53
Net revenue			462.46 453.57	4	05.04	\$3.68
Total income	3,117.39	\$2,	916.03	\$20	11.36	
Taxes	\$349.24 767.26 ,704.94	-	287.51 741.77 865.54	1	31.73 25.49 19.40	*******
Total charges and taxes	,821.44	\$2,0	694.82	813	26.62	*******
Balance *Based on cars carrying passengers.	\$295.95	\$	221.21	8	4.74	*******

ST. LOUIS & SAN FRANCISCO RAILROAD LINES.—CONDENSED INCOME ACCOUNT FOR THE TEN YEARS ENDED JUNE 30, 1911.

Years. 1902. 1903. 1904. 1904. 1905. 1906. 1907. 1908. 1908. 1909. 1910.	. 3,675.23 4,216.88 5,030.45 5,068.92 5,061.72 5,064.16 5,072.67 5,072.67	Gross Income. \$21,818,042 87 25,032,813 84 27,779,842 91 30,790,353 03 35,579,316 45 40,127,172 10 37,354,689 11 39,212,011 61 43,466,368 09 45,493,198 42	expenses and all other deductions from income. \$14,319,004 41 16,327,447 97 18,853,252 04 29,067,003 65 22,144,106 95 26,567,778 36 26,953,802 63 39,732,330 38 31,968,267 33	Total net income. \$7,499,038 46 8,235,955 87 8,926,591 87 10,123,349 38 11,535,210 50 13,761,556 00 10,776,903 75 12,258,208 98 22,704,037 71 13,524,931 09
	5,331,026 22 6,157,852 07 7,494,638 95 7,591,192 87 7,968,190 71	Surplus applicable to dividends. \$2,682,778 60 2,904,339 65 2,768,738 80 2,628,710 43 3,944,017 63 5,733,465 29 2,033,948 14	Less dividends declared as per locome account statements, \$1,210,581 06 2,269,364 62 2,344,544 12 2,444,324 12 2,154,624 12 1,834,624 12 1,834,624 12	Balance of Income carried to profit and loss. \$1,472.197 54 634,975 03 423,895 68 184,386 31 1,789,393 51 3,958,841 17 255,324 02
1909 1910 1911	9,108,950 50 10,042,196 54	3,149,258 48 2,661,841 17 3,070,286 10	1,834,624 12 1,739,624 12 1,734,624 12	1,314,634 35 922,217 05 1,335,661 98

[Continued from Page 71.] otor fire trucks is apparent. If

of motor fire trucks is apparent. If there are no fires for two months you are com-pelled to feed the horses and care for them, while with the motor fire apparatus the cost of running the machines is nothing. Then when you go to a fire the expense for fuel is small, you are fresh and ready after a quick run for fighting the fire, and you reach it at an earlier stage than with horses, which is, of course, a great advantage."

Motor Wagon Display in New York.

Business men will have an opportunity to make a study of motor trucks and delivery wagons in New York at the Grand Central Palace Exhibit from the 6th to the 17th of January next. The models of machines man January next. The models of machines man-ufactured by over 35 companies will be ex-hibited on a floor separate from the exhibit of automobiles. This will be done to enable busy men to study the trucks and talk to exhibitors without loss of time or annoyance from the crowds of show visitors attracted by the automobiles. As the Palace exhibit is to be held concurrently with the annual motor-car exhibition in Madison Square Garden, non-resident visitors will be able to see both exhibits in one trip to the city. It will be possible to inspect in these two exhibits 200 or more of the newest and best models of commercial cars built by over 70 different companies. The Grand Central Palace Ex-hibit is to be conducted under the auspices of the National Association of Automobile Manufacturers by S. A. Miles, 7 E. 42d St., New York, who has managed the annual au-tomobile shows held in Chicago since 1900.

Canning and Preserving.

Between 1904 and 1909, according to the Census Bureau, the capital invested in canning and preserving industry in the United States increased from \$79,-246,000 to \$119,207,000, or 50 per cent. the cost of materials used, \$83,148,000 to \$101.823.000, or 22 per cent.; salaries and wages paid, from \$21,567,000 to \$26, 945,000, or 25 per cent.; miscellaneous expenses, from \$10,825,000 to \$12,718, 000, or 17 per cent., and the value of products, from \$130,466,000 to \$157,-101,000, or 20 per cent. In 1909 there were canned or preserved 32,573,343 cases of vegetables, 5,350,015 cases of fruits, 484,328,767 pounds of dried fruits and 403,773,001 pounds of fish and oysters.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS RECORD

Baltimore, Md., November 22. The Baltimore stock market continued active during the past week, considerable interest being manifested in Seaboard and Atlantic Coast Line issues, both of them advancing, the latter on account of increased dividend.

In the trading United Railways common sold from $18\frac{1}{2}$ to $18\frac{7}{8}$; do. incomes, $64\frac{1}{4}$ to 64%; do. funding 5s, 871/4 to 871/2; do. notes, 991/2 to 995/8; do. 4s, 861/4 to 86; Consolidated Gas, Electric Light & Power common, 94% to 94%; do. preferred, 1001/2 to 991/2; do, 41/2s, 873/4 to 871/8; Consolidated Gas 5s, 108%; Seaboard Air Line common, 241/4 to 251/2; do. preferred,

Consolidated Gas 58, 108%; Seaboard Air Line common, 24¼ to 25½; do. preferred, 46 to 50; Seaboard Company common, 27 to 27½; do. first preferred, 95½ to 98½; do. second preferred, 61½ to 65; Seaboard 48, stamped, 87% to 87%; do. adjustment 58, 80% to 82½; Mt. Vernon-Woodberry Cotton Duck 58, 78¼ to 78%; G.-B.-S. Brewing incomes, 4; do. 48, 39¾.

Bank stock sold as follows: Bank of Baltimore, 172 to 171; Citizens', 41; First National, 138½; Union, 135; Marine, 43½; Mechanics', 28¾.

United States Fidelity sold from 167 to 169, and Maryland Casualty at 93.
Other securities were traded in thus: Fairmont & Clarksburg Traction 58, 99% to 100; Georgia Pacific 68, 113; Macon, Dublin & Savannah 58, 98½ to 98½; West Penn Traction 58, 97; Suffolk & Carolina 58, 100½; Atlantic Coast Line of Connecticut, 247½ to 262½, with last sale at 261; Alabama Consolidated Coal & Iron common, 41; Atlantic Coast Line Consolidated 48, 95½ to 95%; do. convertible debenture 48, 100% to 102¼; do. South Carolina 48, 95%; Consolidation

Coal, 100½ to 99½; City & Suburban (Washington) 5s, 104½; Houston Oil certificates, 8 to 7½; do. preferred, 69½ to 70½; Norfolk & Portsmouth Traction 5s, 89½ to 89¾; Baltimore Traction (North Baltimore division) 5s, 111; Wil-winsten, Welder 5, 111; Alabame Con-(North Baltimore division) 58, 111; Wil-mington & Weldon 58, 111; Alabama Con-solidated Coal & Iron 58, 87; Baltimore Electric 58, stamped, 94½ to 95; Jamison Coal & Coke, George's Creek 58, 92¾; Maryland & Pennsylvania common, 24½ Coal & Coke, George's Creek 5s, 92¾; Maryland & Pennsylvania common, 24½ to 28; Norfolk Railway & Light 5s, 100 to 99½; Belair Electric 1st 6s, 1940, 100; United States Steel common, 62½ to 64½, reacting to 63½; Baltimore City 3½s, 1980, 90; do. 3½s, 1927, 87½; do. 5s, 1916, 104; do. 4s, 1954, 101½; do. 3½s, 1930, 95; do. do. 1940, 94½; do. 4s, 1961, 102½; Maryland & Pennsylvania incomes, 62½ to 64; Georgia & Alabama Consolidated 5s, 107 to 107½; Maryland Electric 5s, 98¾ to 99; South Bound 5s, 108; Maryland 3½s, 1914, 97½; Roland Park Electric & Water 5s, 101; Merchants & Miners' Transportation Co., voting trust, 71½; Canton Company, Baltimore, 120; Georgia, Carolina & Northern 5s, 105½; Augusta & Aiken preferred, 73 to 76; Georgia Southern & Florida 5s, 107¾ to 107½; Baltimore Electric preferred, 40½; Western Maryland 4s, 88; Milwaukee Refunding 4½s, 94; Memphis Street Railway 5s, 98½; Anacostia & Potomac 5s, 101; Consolidation Coal refunding 4½s, 93½; Chicago Railway 5s, 100%; Minneapolis & St. Paul joint 5s, 105½; Northern Central Railway stock, 127; Virginia Railway & Power common, 40; Maryland & Pennsylvania 4s, 90; Baltimore, Sparrows Point & Chesapeake 4½s, 96½. . Sparrows Point & Chesapeake 41/28

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended

November 22, 1911.		
Railroad Stocks. Par.	Bid. Aske	đ
Atlantic Coast Line100	1361/2 137	1,
Atlantic Coast of Conn 100	258	
Augusta & Aiken Pfd100	75% 76	1,4
Fairmont & Clarks, Trac. Pfd.100	84	ij
Georgia Sou. & Fla. 1st Pfd100	94 99	1
Georgia Sou, & Fla. 2d Pfd100	70	
Maryland & Pennsylvania 100	271/2 30	
Seaboard Co. Common	26%	
Seaboard Co. 1st Pfd	98	3/4
Seaboard Co. 2d Pfd100	63	.,
United Rys. & Elec. Co 50	181/6 19	
Virginia Ry. & P. Com100	40	
Bank Stocks.		
Bank of Baltimore100	171	
Citizens' 10	41 41	34
Exchange100	165	
Farmers & Merchants' 40	501/2	
First National100	135 142	
German-American100	106	
German	108	
Howard 10	131/2	
Mechanics'	281/4	
Merchants'100	184 186	
National City100	112	
Old Town 10	1214	
Union100	137 138	
Western 20	38 40	1/4
Trust, Fidelity and Casu-		
Reltimore Trust 100	16414	

Baltimore Trust.
Colonial Trust.
Continental Trust.
Fidelity & Deposit.
Fidelity Trust.
Maryland Casualty.
Mercantile Trust & Deposit.
U. S. Fidelity & Guaranty. 56

U. S. Fidelity & Guaranty...

Miscellaneous Stocks.

Ala. Con. Coal & Iron Pfd...

Con. Gas, Elec. Lt. & P. Com..

Con. Gas, Elec. Lt. & P. Pfd..

Consolidation Coal.

G.B.-S. Brewing Co...

Mer. & Miners' Trans. Co...

Railroad Bonds.

Atlanta & Birmingham 4s.

Atlanta & Coast Ist 99 9934

103½ 104 110

Virginia Midland 5th 5s.
Washington-Vandemere 4½s.
Western Maryland 4s.
Western N. C. Con. 6s.
Wilmington & Weldon 5s.
Street Railway Bonds.
Anacostia & Potomac 5s.
Angusta Railway & Electric 5s.
Baltimore Traction 1st 5s.
Baltimore Traction (N. B.) 5s.
Central Railway (Balto.) Con. 5s.
Central Railway (Balto.) Con. 5s.
Central Railway (Balto.) Con. 5s.
Charleston City Railway 5s.
Charleston City Railway 5s.
Charleston Con. Elec. 5s.
Chizens R., L. & P. of N. N. 5s.
City & Suburban 5s (Balto.) 100½ 102 101 103½ 96¼ 97 107½ 107¾ 109 ... 107½ ... 107½ ... 104 ... 96½ 97 70 80 ...

City & Suburban 5s (Wash.) Fairmont & Clarksburg Trac. 5s. Knoxville Traction 5s. Lake Roland Elevated 5s. Lexington Rallway 1st 5s. Maryland Electric Rallways 5s. Maryland Electric Rallways 5s. Newport News & Old Pt. 1st 5s. Norfolk & Portsmouth Trac. 5s. Norfolk Rallway & Light 5s. Norfolk Rallway & Light 5s. Inited Rallways 1st 4s. United Rallways Intolme 4s. United Rallways Funding 5s.	100 105 108 94 100 9814 8914 8914 8915 10536 85 6416 8714	105 100½ 107½ 107½ 97 101 99½ 100 93 89% 99% 99%
United Railways Notes 5s	993/8	991/2
Miscellaneous Bonds.		
Ala. Con. Coal & Iron 5s	85	87
Baltimore Electric 5s, Stp	941/2	95
Belvidere Hotel 5s	****	100
Consolidated Gas 5s	108% 96%	00
Consolidated Gas 41/28	9934	98
Con. Gas. Elec. Lt. & P. Notes	8734	88
Con. Gas, Elec. Lt. & P. 4½s Consolidation Coal Refd. 4½s	93	94
Consolidation Coal Refd. 58	9434	951/2
Fairmont Coal 1st 5s	97	971/4
GBS. Brewing 1st 4s		40
GBS. Brewing Income 5s	3	31/4
Maryland Club 41/48	9614	98
Mt. Vernon-Woodb'y Cot. Duck 5s.	781/4	781/2
United Elec. Lt. & P. 4½s	93%	941/2

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S Glenn, Broker, Spartanburg, S. C., for Week Ending November 20.

for Week Ending November	20. Aske
	75

American Spinning Co. (S. C.) 160	48
Anderson Cotton Mills (S. C.)	100
Anderson Cot. Mills (S. C.) Pfd Arcadia Mills (S. C.) 92	
Arkwright Cotton Mills (S. C.) 99 Augusta Factory (Ga.) 40	100
Avondale Mills (Ala.)	***
Belton Mills (S. C.) 105	120
Brandon Mills (S. C.) 90	103
Cannon Mfg. Co. (N. C.)	90
Arcadia Mills (S. C.) 92 Arkwright Cotton Mills (S. C.) 99 Arkwright Cotton Mills (S. C.) 99 Augusta Factory (Ga.) 40 Avondale Mills (Ala.) 116 Belton Mills (S. C.) 105 Brandon Mills (S. C.) 90 Brogon Mills (S. C.) 90 Cannon Mig. Co. (N. C.) 135 Cabarrus Cotton Mills (N. C.) 130 Cabarrus Cotton Mills (N. C.) 130 Cabarrus (N. C.) C.) 676 100	135
Chadwick Mfg. Co. (N. C.) Pfd 100	111
Chiquola Mfg. Co. (S. C.)	170
	120
Columbus Mfg. Co. (Ga.) 93	98
Columbus Mfg. Co. (Ga.)	100
Darlington Mfg. Co. (S. C.)	80
D. E. Converse Co. (S. C.)	90
Drayton Mills (S. C.) 95	100
Eagle & Phenix Mills (Ga.) 117 Easley Cotton Mills (S. C.) 162	175
Enoree Mfg. Co. (8, C.) 50	65
Enoree Mfg. Co. (S. C.) Pfd 96	100
Enterprise Mfg. Co. (Ga.) 65	75 200
Gaffney Mfg. Co. (S. C.) 57	62
Gainesville Cotton Mills (Ga.) 72	80
Glenwood Cotton Mills (S. C.) 130	150
Gluck Mills (S. C.)	45
Graniteville Mfg. Co. (S. C.) 140	145
Greenwood Cotton Mills (S. C.) 57	60
Grendel Mills (S. C.) 90 Hartsville Cotton Mill (S. C.) 160	100
Hartsville Cotton Mill (S. C.) 160 Henrietta Mills (N. C.) 160	175
Inman Mills (S. C.) 100	105
King Mfg. Co., J. P. (Ga.) 80 Lancaster Cotton Mills (S. C.) 130	85
Lancaster Cot. Mills (S. C.) Pfd. 97	100
Langly Mfg. Co. (S. C.)	112 135
Limestone Mills (S. C.) 156	160
Lockhart Mills (S. C.)	65
Lockhart Mills (S. C.) Pfd 90	100
Loray Cotton Mills (N. C.), Pfd Marlboro Cotton Mills (S. C.)	96 80
Mills Mfg. Co. (S. C.)	102
Mollohon Mfg. Co. (S. C.)	96
Monarch Cotton Mills (S. C.) 105	110
Newberry Cotton Mills (S. C.) 136	130
Ninety-Six Cotton Mills (S. C.) 130	150 130
Divmpla Cotton Mills (S. C.) 90	100
Orr Cotton Mills (S. C.) 90	98
Pacolet Mfg. Co. (S. C.)	100
Pacolet Mig. Co. (S. C.) Pid 95	25
Parker Common	65
Peiser Mfg. Co. (S. C.)	168
Poe Mfg. Co., F. W. (S. C.) 110	175
axon Mills (S. C.)	130
Baxon Mills (S. C.)	68
Spartan Milis (S. C.) 120	130 130
Pucapan Mills (S. C.)	350
nion-Buffalo (S. C.) 1st Pfd	60
Inion-Buffalo (S. C.) 2d Pfd 110	15 115
Warren Mfg. Co. (S. C.)	96
Warren Mfg. Co. (S. C.) Pfd 100	106
Vashington Mills (Va.) 28 Vashington Mills (Va.) Pfd. 106 Vhitney Mfg. Co. (S. C.) Viscassett Mills (N. C.)	110
Vashington Mills (Va.) Pfd 106 Vhitney Mfg. Co. (S. C.)	110
Viscassett Mills (N. C.)	135
Voodrum Cotton Mills (S. C.) 109	110
Voodside Cotton Mills (S. C.)	100 85
Vatts Mills (S. C.)	125
FINANCIAL CORPORATION	S.

FINANCIAL CORPORATIONS.

Ala., Ashford.-The First National Bank is reported chartered; capital \$25,000. W. P. Burkett is president; J. R. Dawsey, vice-president, and J. R. Gwathiey, cashier.

Ala., Berry.—The Bank of Berry is reported to have filed articles of incorporation; capital \$15,000; incorporators, E. P. Goodwin, C. A. Beasley and others.

Ala., Brewton.-A letter to the Manufacturers Record says \$25,000 has b

turers Record says \$25,000 has been subscribed for the establishment of a third bank at Brewton.

Ark., Marshall.—Official: The Citizens' Bank incorporated; capital \$25,000. Business is to begin about January 15 with J. E. Treece as president.

Ala., Mobile.—The Gould Brokerage Co., athorized capital \$8000, is reported incorpo rated. Among those interested are J. M. Gould, A. L. Gould and J. W. Tharp.

Ala., Talladega.-The Bankers' Investmen Co., capital \$25,000, is reported incorporated by McLane Tilton, Jr., J. Fall Robinson, Kalford Keith, L. W. Dickinson, R. B. Burns and T. H. Rennie.

and T. H. Rennie.

Ark., Everton.—The Bank of Everton, capital \$10,000, is reported organized; J. E. Potts, president; L. B. Killebrew, vice-president, and Martin Korff, secretary and cashier; Joseph O. Rea, R. L. Workman. Business is expected to begin soon.

Ark., Fort Smith.—The Central Bank & Trust Co. is reported to have elected officers thus: Charles S. Leonard, first vice-president and active managing officer, and E. D. Martin, second vice-president; J. H. Herslelected secretary-treasurer.

Ark., Little Rock.—The Merchants and Planters' Bank is reported organized with \$300,000; R. A. Little, president; D. G. Fones and O. P. Robinson, vice-presidents, and E. T. Reaves, cashler.

Ark., Millville.-Official: The Co-o Investment Co. Incorporated; capital \$50,000; organizers, C. A. Buchner, C. G. Atkinson, H. W. Burroughs and H. H. Norman and others. Business is to begin at once.

Fla., Bartow.—The Citizens' Bank is re-ported to have begun business with E. E. Skipper president and G. B. Skipper cashier.

Fla., Miami.—The Southern Bank & Trust Co., capital \$100,000, is reported being organ-Co., capital \$190,000, is reported being organized by J. N. Lummus, Frederick Streeter Morse, James E. Lummus, Charles S. Huddleston of Miami, and T. W. Shands of Gainesville, Fla. The officers are J. N. Lummus, president; Frederick Streeter Morse, vice-president, and Clarence L. Huddleston, secretary and treasurer. Offices will be on West 12th St.

Ga., Atlanta.—The Columbian Building Association is reported incorporated with \$5000 capital by M. C. Carroll, Jr., Richard A. Magill and others.

Ga., Atlanta.—The Fulton Loan & Trust Co., capital \$25,000, is reported incorporated by W. A. Callaway, A. W. Jackson and C. by W. A. A. Withers

Ga., Atlanta.—The City Savings Bank has published its charter; capital \$50,000; petitioners, R. H. McDougall, F. M. Loveless, Clarence May, Ed. M. Pearce and R. E.

Ga., Lyerly .- A new bank is reported being organized by N. K. Bitting of Summerville, Ga.

Ga., Macon.-Official: The Central Trust Ga., Macon.—Official: The Central Trust Co., capital \$509,000, is being organized by J. J. Cobb chairman, S. C. Moore secretary, W. E. Small, J. E. Hall, Will Gunn, T. C. Parker, L. A. Shepherd, Herbert F. Haley, Leon S. Dure, Josse H. Hall, M. Y. Manley, J. A. Flournoy, Cecil Morgan, E. P. Mallary, Thos. B. West and E. N. Lewis.

Ga., Macon.—Reported that a new bank is to be organized with \$50,000 capital. Among the incorporators are Lee Happ, J. F. Heard, C. B. Lewis, C. E. Newton, R. E. Willingham, Elton Adams, B. S. Walker, Jr., J. C. Walker, the Williams Buggy Co. Ben Persons and others. An official letter says the bank will be organized about January 1, offices to be located in the building belonging to Happ Bros. Company, corner of 4th and Pine Sts.

Ga., Rex.—The Bank of Rex, capital \$25,000, is repoted organized with directors thus: J. O. Norris, president; Dr. W. C. Estes, first vice-president; Robert E. Kyle, second vice-president; A. S. Fort, C. L. Powell.

Ga., Richland.—The Farmers and Merchants' Bank of Richland is reported to have filed application for a charter; capital \$25,000; incorporators. Jas. S. Gordy, G. C. Adams, E. B. Pickett, C. C. Alston, M. H. Perry and J. J. Askew.

Ky., Louisville.—The Kentucky Bankers' Association is reported incorporated by J. K. Waller, John H. Leathers, John Altsheler, John Stites, L. N. Davis, J. W. Porter, Geo. E. Engle, Samuel Casseday and Arch B.

La., New Orleans,-The Bright & Harvey Insurance Agency, Ltd., capital \$5000, is reported to have filed articles of incorporation; George C. Bright, president; James A. Harvey, vice-president, and Edward C. Moore

Md., Towson. - The Frankston Build Loan & Trust Co., capital \$200,000, is reported to have filed articles of incorporation. The incorporators are Frank Mladejoysky, Frank Joseph A. Ambrose and

[For Additional Financial News, See

THE

Capital Surplus

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WM. S. Dela

> BANK TITLE REAL

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63

Established 1835

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The Merchants National Bank

South and Water Sts... BALTIMORE, MD.
DOUGLAS H. THOMAS, President.
WM. INGLE, Vice-Pres, and Cashier.
J. C. WANDS, Asst. Cashier.
Capital 31,500,000
Surplus and Profilis - - 3900,000
Deposits, \$12,000,000
Accounts of Banks, Bankers, Corporations and Individuals solicited. We invite correspondence.

THE FIRST NATIONAL BANK OF KEY WEST, FLA.

States Depository and Disbursing Agent.

Agent.

Capital - - - \$100,000

Surglus and Undivided Profits - \$40,000

A general banking business transacted.

Special attention given to collections.

IF

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FIRST NATIONAL BANK RICHMOND, VA.

JNO. B. PURCELL JNO. M. MILLER, Jr. Vice-Pres. & Cashier

Tresident

Assets over \$11,000,000.00

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WILMINGTON, DELAWARE
INCORPORATING under broad, liberal, safe
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department for proper organization and re-

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Banking AND TRUST department gives
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TILE DEPARTMENT examines and gauran-tees title to realty throughout Delaware.

REALTY DEPARTMENT has sites for manu-facturing industries. Modern Methods of management of property.

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J. ERNEST SMITH, V.-Pres. and Gen. Counsel.

WM. G. TAYLOR, Treasurer.

HARRY W. DAVIS, Secretary.

W. W. PUSEY, 2d Title and Real Estate Officer.

H. B. Wilcox, President. Blanchard Randall. V.-Pres Wm. S. Hammond, Cash. Saml. W. Tschudi, A. Cash. R. E. Bolling, A. Cash. Raymond B. Cox, Auditor.

The First National Bank

17 South St., Beltimore, Md.
Capital - 81,980,000
Surplus and Net Profits - 550,000
Resources - 9,000,006

Resources 9,000,000

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The National Exchange Bank

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July 15, 1908, Surplus and Profits \$671,631.60 OFFICERS:

OFFICERS:
WALDO NEWCOMER, President.
SUMMERFIELD BALDWIN, Vice-Pres.
R. VINTON LANSDALE, Cashier.
C. G. MORGAN, Asst. Cashier.
Accounts of Mercantile Firms, Corporation:
Banks, Bankers and Individuals Invited.

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1st. Nat. Bank Bldg., CHICAGO

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SURETY BONDS

Fidelity and Deposit Co.

OF MARYLAND Heme Office, BALTIMORE, MD

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Pioneer Surety Co. of the South. Becomes Surety on bonds of every description.

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the coal bill when you

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Investment securities bought, sold or ex-changed for other securities. Loans pro-cured for Railroad, Industrial and other cor-porations. Special attention given to securi-ties issued for development or extension purposes in the South.

Guaranty State Bank & Trust Co.

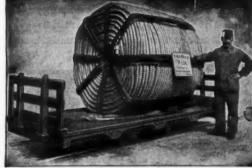
DALLAS, TEXAS
Capital, - \$400,000.00
Surplus and Prefits, 50,000.00
Deposits, - 2,500,000.00
Largest State bank in Texas. A General
Banking and Trust Business. Ask us about our
6% Real Estate Mortgages.

For Clean, Impartial, Financial and

FINANCIAL REVIEW

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NOTICE.—If you have a problem in power transmission our engineering department will be glad to go into the details with you. This service is extended absolutely without cost to prospective customers.

If you use Manila, Sisal, or Jute Rope, Lath Yarn or Cordage of any kind, it will pay you to communicate with

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Largest Workers of Fibre in the World

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Correspondence invited from Investors wishing to sell their holdings of seasoned marketable Municipal Bonds, and from municipal officials and contractors in connection with entire new issues.

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ADDITIONAL CAPITAL FOR DEVELOPMENT OF YOUR BUSINESS.

We will promptly consider applications from progressive, well established industries, steam electric railways and public service corporations.

Our institution has

THE LARGEST BANKING CAPITAL IN THE SOUTHERN STATES. and during 27 years' direct Southern affiliation has been actively engaged in promoting Southern enterprises.

ENTIRE ISSUES OF BONDS PURCHASED. MERGERS F INTERESTS PAID ON DEPOSIT ACCOUNTS.

Mercantile Trust and Deposit Company

Established 1884.

Capital and Surplus, \$4,500,000

Miss., Brookhaven.-The Seavey Realty & Mortgage Co., capital \$60,000, is reported in-corporated by W. H. Seavey, J. E. Seavey, Mrs. A. C. Seavey and E. M. Bee.

Mo., Bloomfield. — The Stoddard County Trust Co. is reported incorporated by Franz Weber, Alfred L. Hartz, Jasper N. Punch, S. B. Hunter of Sikeston, and W. Shobe of

N C Charlotte - The Savings Bank & Trust Co. is reported chartered; capital \$50, 600; organizers, H. M. Wade, L. L. Caudle, H. P. Dew, W. M. Tye and T. J. Cattis,

N. C., Charlotte.-The Savings Bank N. C., Charlotte.—The Savings Bank & Trust Co. of Charlotte, capital \$25,000, is reported organized by H. M. Wade of the H. M. Wade Manufacturing Co., W M. Tye, W. M. Moore, Willis Brown, J. O. Walker, T. J. Gattis, Caudle & De Laney and other local business men, and H. P. Dew, active vice-president and cashier of the People's Bank of Blacksburg, S. C. Offices will be in the Wittskowsy building, corner 5th and North. Tryon Sts.

N. C. Raleigh.-The Raleigh Realty Loan & Trust Co., authorized capital \$50,000, Is ported organized by J. J. Rogers and other

N. C., Wallace.-The Rural Building and Loan Association, capital \$100,000, is reported being organized by W. B. Brice, Z. J. Carter, A. L. McGowen, T. O. Hall, Jacob Powell and Dr. B. R. Graham.

or U., Wilmington.—The Carolina Title Insurance Co. is reported to have filed articles of incorporation; W. B. Cooper, president; V. Sidbury, vice-president; A. W. Pate, second vice-president; J. C. Reilly, treasurer, and K. C. Sidbury, secretary. N. C., Wilmington,-The Carolina Title In-

Okla., Sharon,-The Sharon State Bark capital \$10,000, is reported incorporated by J. C., Krouth, L. B. Krouth of Moorland, L. L. Chamberlin of Hackberry.

Okla., Tushka.-The Planters' State Bank. Allison, J. W. Jones, B. F. Rogers, all

S. C., Beaufort.-Reported chartered: The Beaufort Realty & Loan Co.; capital \$2500; G. W. Beckett, president; J. S. Claghorn, vice-president and treasurer, and J. H. Jenk-

S. C. Charleston,-Official: The Triest & Israel Company, 38 Broad St., incorporated; capital \$50,000; officers not yet elected. Business is expected to begin about January 1. This company is a change from another con-

S. C., Georgetown,-The Palmetto Building s. C., Georgetown.—The Patimetto Bullding and Loan Association is reported to have been granted a commission; capital \$75,000; petitioners, W. D. Morgan, J. I. Hazard, C. L. Ford and L. S. Elerich.

Tenn., McMinnville.—A new bank is reported being organized with \$50,000 capital J. D. Elkins, J. T. Henegar, J. P. Hughes, C. Myers, Zeb Martin, F. H. Badgar and H. Magness.

Fowlertown.-Official: First State Bank of Fowlertown chartered; capital \$10,-000; surplus \$2000; directors, W. H. Patton, president; H. M. Patton, cashier, and Robert Sutton, vice-president; A. H. Jones and L. R. Hords

Tex., Houston,-The American Trust Co is reported to have filed its charter; capital \$500,000; incorporators, Monta J. Moore, E. C. Noble, R. C. Duff and J. D. Hefley.

Va Buckhead .- The International & Great Va., Ducadean The Internation of St. Northern Corporation, a securifies company, is reported incorporated with from \$75,000 to \$7,500,000 capital; Frank J. Gould, president, Tarrytown, N. Y.; George H. Taylor, vice-president, New York city; Guy Phillips, sec-retary, Yonkers, N. Y.; A. H. Calef, New York city; Henry W. Anderson, Richmond; H. H. Chalkley, Richmond; Thomas E. Clay,

Va., Churchville, - The Augusta County Is reported incorporated with from to \$20,000 capital by M. P. Jones, presi J. A. Brown, vice-president; B. W. dent; J. A. Brown, vic Jones, secretary; R. A. Gilliam, cashier.

Va., Kinsale.—The Northern Neck National Bank, capital \$25,000, is reported being organy V. B. Hardwick, Kinsale; W. T. G. W. English, E. M. Pennington and ized by

W. Va., Rainelle.-The Bank of Rainelle W. Va., Rainelle.—The Bank of Rainelle, authorized capital \$25,000, is reported incor-porated by I. W. Raine of Esmond, John Raine and I. M. Arnold of Rainelle, T. L. Andrews of New Bethlehem, Pa., and Lewis C. Dyer of Hambleton, W. Va.

NEW SECURITIES.

Ala., Mobile.-Press dispatches state that \$150,000 of 5 per cent. 20-year road bonds will be offered on December 8, interest 41/2 or 5

per cent.; denomination. Chairman, Mobile County. denomination \$500.

Ala., New Decatur.-W. M. Leftwich & Co. of Birmingham are reported to have pur-chased \$5200 of sidewalk bonds. It is also stated that the City Council has authorized the issuing of \$14,700 of street-improven

Ala., Russellville.-Press dispatches state that the election to vote on \$125,000 of 4½ per cent. 30-year Franklin county bonds has been postponed from November 6 until next

Ala., New Decatur.-According to press dis patches, the sale of \$20,000 of school bonds to a Cleveland (Ohlo) company was not consummated, and the bonds have been sold to the Alabama Bond Co of Birmingham, Ala.

Ala., Union Springs.—Official: Voted November 13: \$35,000 of 5 per cent. 30-year sewer and water-tower bonds; denomination \$500. P. L. Cowan is Clerk.

Ala., Wetumpka.-Reported that bids will be received until December 5 by M. O. Still, Judge of Probate, for \$50,000 of 5 per cent. Elmore county road bonds.

Ark., Argenta.—The question of is \$70,000 or \$80,000 of school and refu bonds is reported under consideration. refunding

Fla., Bradentown.-December 12, it is orted, an election is to be held to vote on bridge bonds.

Bradentown.-Press dispatches state that John Nuveen & Co. of Chicago were awarded \$15,000 of 5 per cent. bonds of Cor-tex Special Road and Bridge District, Man-atee county, at \$27 premium.

Fla., Fort Pierce.—Notice is given that an election is to be held December 12 to vote on \$45,000 of water-works, \$30,000 of sewerage and \$15,000 of electric-light 6 per cent, bonds: mination \$500; R. Whyte is Mayor

Fla., Gainesville.-Farson, Son & Co., Chiare reported to have recently purc

Fla., Madison.—January 2, it is reported, an election is to be held to vote on bonds for purchase of the Madison Electric Power 'o.'s plant.

Fla., Palmetto.-Official: Bids will be ceived until 10 A. M. December 14 for \$15,000 of 6 per cent. 20-30-year municipal bonds. W. B. Whitehead is Mayor and W. M. Row-

Quincy .- Reported that no satisfac tory bids were received November 6 for \$55,000 of 5 per cent, 20-year Gadsden county

Fla., Tallahassee,-Official: November 28 on is to be held to vote on \$30,000 of cent. 50-year paving bonds; denomina \$1000. Address A. H. Williams, treas urer. D. M. Lowry is Mayor

Fla., Tampa.—An official letter says plans are being made to float \$2,000,000 of bonds for sewerage system, etc. D. B. McKay is

Ga., Augusta.—An official letter confirms report that an election is to be held the early part of 1912 to vote on about \$400,699 of bonds. Wm. Lyon is clerk of Council.

water-works and electric-light bonds.

Ga., Lincolnton.—December 7, it is reported, an election is to be held in Lincoln county to vote on \$30,000 of courthouse con-

Ga., Oultman.-Official: An election is to be held January 16 to vote on \$40,000 of school builidng, \$23,000 of street paving and \$12,000 of fire department 4½ per cent. 30-year bonds. Address Jos. D. Wilson, Mayor.

Ga., Thomasville.—An official letter says date has not yet been set for election to vote n school bonds.

Ky., Jeffersonville.--Reported that \$60,000 er cent. judgment funding bonds have

Ky., Lexington.—An official letter says hat both the city and county bond issues ailed to carry. Theo, Lewis is County Clerk.

Ky., Lexington. — An ordinance has been prepared providing for the sale of \$646.94 of per cent. street-improvement bonds. John cain is Mayor.

Ky., Ludlow.-Reported defeated: \$30,000 street-improvement bonds.

Ky., Madisonville,-Reported voted: Water-

Ky., Maysville,-Reported defeated: \$60,000 of Mason county infirmary bonds.

Ky., Paducah.—An official letter confirms report that school bonds were defeated. John A. Carnagey is superintendent of city schools.

Ky., Russell.-Reported that E. W. Smith, Town Clerk, will receive bids until December 4 for \$14,423.71 of 6 per cent. sewer bonds denomination \$500: dated December maturity \$1500 December 4, 1912 to 1920, \$923.71 in 1921.

La., Hammond. - Press dispatches state that it is proposed to issue \$90,000 of bonds, as follows: Schools, \$30,000; streets and landings, \$15,000; sewerage, \$35,000; waterworks extension, \$10,000.

La., Kentwood.-Reported that the Inter

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ELMER L. HATTER, C. P. A., Treasurer ERNEST E. WOODEN, C. P. A., Secretary

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Okla., N Okla., N of city ha Okla., Pa state Bank & Trust Co. of New Orleans, La., has purchased \$50,000 of 5 per cent. 25-year water-works bonds. W. D. Welsh is Mayor.

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La., Morgan City.—Official: Voted November 7: \$8000 of 5 per cent. water-works and sewerage bonds. Denomination \$500; dated January 1, 1912. Address Mayor and Council.

La, Lafayette.—Press dispatches state that Attorney W. S. Lewis of New Orleans, representing the Germania Bank, is conferring with the Mayor and City Council regarding the purchase of \$50,000 of certificates of indebtedness to be issued for water and light innrovements.

La., Lake Charles.—December 12 an election is to be held to vote on \$140,000 of 5 per cent. 35-year school-building bonds. C. B. Richard is Mayor.

La., Vidalia.—The Interstate Trust & Banking Co. of New Orleans is reported to have purchased \$20,000 of 5 per cent. Concordia earlsh high-school bonds.

Md., Baltimore.—It is announced that bids will be opened on December 4 and close December 18 for \$500,000 of the paving loan.

Miss., Batesville.—Reported that \$4000 of 6 per cent. 5-20-year municipal improvement bonds are being offered. J. B. Carothers is city Clerk.

Miss., Magnolia.—Official: Bids will be received until 7.30 P. M. December 5 for \$12,000 of 6 per cent. sidewalk bonds; denomination \$1600; maturity December 1, 1931. Joseph E. Norwood is Mayor.

Miss., Meridian.—Reported voted: \$50,000 of bonds for terminals and rights of way for the Meridian & Pensacola Railroad.

Miss., Shubuta. — December 12, it is reported, an election is to be held to vote on sater-works bonds.

Miss., Wiggins.-Reported defeated: road bonds.

Mo., Lamar.—Official: Bids will be received until 7 P. M. December 4 by J. P. Weddell, City Clerk, for \$70,000 of 5-20-year municipal water and electric-light plant bonds voted October 24; denomination \$1600.

Mo., Springfield.—Reported voted: \$100,000 of sewer bonds; defeated, \$600,000 of waterworks bonds.

N. C., Halifax.—The election called for November 14 to vote on \$300,000 of Halifax county road bonds is reported to have been declared off.

N. C., Charlotte,—Press dispatches state that \$150,000 of street bonds are to be issued

N. C., Greenshoro.—Reported that an election is to be held in Morehead and Gilmer township December 11 to vote on railroadaid bonds.

N. C., Hendersonville.—Petitions are being circulated, it is reported, asking the commissioners of Henderson county to call an election to vote on \$100,000 of road bonds.

N. C., Laurinburg.—Official: Bids will be received until 10 A. M. December 4 for \$30,000 of Laurel Hill township and \$20,000 of Spring Hill township, Scotland county, 6 per cent. 19.30-year road bonds; denomination \$1000. W. G. Buie is chairman Board of County Commissioners, and C. E. Muse, clerk.

N. C., Sanford.—Bids will be received until December 4, it is reported, for \$15,000 of 5 per cent. 30-year Lee county road bonds.

N. C., Yadkinville.—According to press dispatches, it is proposed to hold election in 'arlous townships in Yadkin county to vote on about \$125,000 of bonds in aid of Randolph & Cumberland Railroad Co.

N. C., Wilmington.—Press dispatches state that all lids received November 15 for the \$400,000 of 4½ per cent. 40-year street, water and sewerage bonds were rejected, and new bids will be received until noon November 25. Joseph D, Smith is Mayor and Thos. D. Meares City Treasurer.

Okla., Ardmore.—Official: \$100,000 of highechool-building bonds are now being printed; not yet on the market. G. H. Bruce, Box 27, in clerk, Board of Education.

Okla., Bennington.—Official: Bids will be received until 8 P. M. December 15 for \$20,000 of 5 per cent. 25-year water-works bonds. Jesse Sipes is Town Clerk.

Okla., Duncan.—An official letter confirms report that Stephens county bond issue was defeated.

Okla., Kingfisher. — Official: Defeated: Kingfisher county bighway bonds. Geo. H. Woodwart is County Clerk. Okla., Nobla.

Okla., Noble.—Reported voted: \$8000 of water-works bonds.

Okla., Nowata.—Reported voted: \$20,000 of city hall, jail and fire-station bonds.

0kla., Pawhuska.—Reported defeated: \$40,-

600 of Black Dog township, Osage county, road-improvement bonds.

S. C., Cartersville.—Reported that \$6000 of 6 per cent. 20-year school-building bonds of District No. 38 have been sold at par.

S. C., Fort Mill.—Press dispatches state that the election held some time ago to vote on street-paving bonds has been declared illegal and that a new election is called for December 7.

S. C., Mullins.—Reported sold: \$10,000 of 6 per cent. 5-10-year bonds.

Tenn., Chattanooga.—The City Water Co. is reported to have issued \$1.800,000 of first refunding 6 per cent. 20-year bonds.

Tenn., Gainesboro.—Official: December 9 an election is to be held in Jackson county to vote on \$150,000 of 4 per cent. 30-year road bonds; denomination \$1000. G. Lee McGlasson is Clerk County Court.

Tenn., Halls.—Official: The election to vote on street, sidewalk and seworage bonds has been postponed. B. M. Archer is Mayor.

Tenn., Jonesboro.—Official: Bids will be received until December 15 by W. C. Leab, clerk of Washington county, for \$60,000 of 5 per cent. 10-20-year county bonds.

Tenn., Knoxville.—An ordinance is reported to have been introduced in the City Council authorizing the issuing of \$15,000 of short term inprovement bonds.

Tex., Austin.—The Attorney-General has approved the following securities: \$100,000 of 5 per cent. 10-40-year Lamar county road district bonds; \$180,000 of Houston Heights improvement bonds; \$7000 of 5 per cent. 10-year lei Rio independent school district bonds; \$6500 of 5 per cent. 20-40-year Hemphill county common school district No. 1 bonds; 6000 of 5 per cent. 20-40-year Bruceville independent school district bonds and \$1000 of 5 per cent. 10-year bonds of Bastrop county common school district No. 28; \$3000 of 4 per cent. two-five-year Stephenville independent school district, Erath county, bonds; \$524,000 of 5 per cent. 20-30-year Houston public-debt bonds.

Tex., Bay City.—Official: Voted November 7: \$27,850 of 5 per cent. drainage bonds of Matagorda county; dated November 13, 1911; maturity, \$1000 each year until 1989; denomination \$1000. Address W. S. Holman, County Judge.

Tex., Bay City.—Reported sold: \$20,000 of independent school district bonds.

Tex., Beaumont.—Bids will be received between January 1 and 16, it is reported, for .\$50,000 of sewer, \$25,000 of street-improvement, \$25,000 of abattoir, \$25,000 of school and \$15,000 of jail 5 per cent. bonds: dated December 1, 1911; due 1951; optional after 1831. Emmet A. Fletcher is Mayor.

Tex., Brownsville.—Reports state that \$80,-000 of street-improvement and \$12,000 of market-house 5 per cent. 20-40-year bonds have been purchased by Kansas City (Mo.) parties.

Tex., Brownsville,—Reported voted: \$230,-000 of Cameron county courthouse and jail bonds.

Tex., Bryan.—J. N. Cole is reported to have purchased \$20,000 of water, light and sewer extension 5 per cent 10-40-year bonds.

Tex., Clarksville.—Official: The \$10,000 of water-extension bonds have been sold at par and accrued interest, \$4000 being taken by the Rcd River Company and the balance by local parties to individuals of Clarksville. John R. Webb is City Clerk.

Tex., Clarksville.—Official: Voted: \$25,990 of 4½ per cent. sewer bonds. J. R. Webb is City Clerk.

Tex., Corpus Christi.—A Toledo (O.) bonding house is reported to have purchased \$50,000 of municipal wharf and \$55,000 of city hall and fire department bonds. Another dispatch says that \$48,000 of wharf bonds have been taken at par and accrued interest by the Corpus Christi National Bank.

Tex., Crowell.—Bids will be received until 3 P. M. December 4 by J. W. Beverly, secretary, for \$20,000 of 5 per cent. 40-year bonds.

Tex.. Dallas.—According to press dispatches an election will soon be called to vote on \$500,000 of water-works bonds.

Tex., Decatur.—Reported that an election is to be held to vote on \$18,000 of water, light and power bonds.

Tex., Floresville.—Reported that an election is to be held in Wilson county to vote on \$30,000 of good-roads bonds.

Tex., Gall.—January 6, it is reported, an election is to be held in Borden county to vote on \$50,000 of courthouse bonds.

Tex., Houston Heights—Official: City has contracted with Cutter & May, Chicago, and Southerlin & Co., Kansas City, for the sale of \$180,000 of 5 per cent. 30-40-year bonds at par and accrued interest; denomination

\$1000; dated January 1, 1912. Address D. Barker, Mayor.

Tex., Mt. Vernon.—An election is to be held December 15, it is reported, to vote on \$30,000 of water-works bonds.

Tex., Palestine.—Reported voted: \$100,000 of Anderson county road bonds.

Tex., Pecos.—January 19, it is reported, an election is to be held in precincts 1 and 4, Reeves county, to vote on \$100,000 of road bonds.

Tex., Sherman.—Press dispatches state that it is proposed to hold an election December 5 to vote on \$400,000 of Grayson county road bonds.

Tex., Tyler.—December 5, it is reported, an election is to be held to vote on \$50,000 of high-school bonds.

Tex., Victoria.—The Commissioners' Court of Victoria county is reported to have been petitioned to call an election to vote on \$40,000 of rond-improvement bonds of Mission Valley district.

Tex., Victoria.—Petitions are reported being circulated in Victoria precinct calling for an election to vote on \$200,000 of road-improvement bonds.

Va., Lynchburg.—An official letter says that bond issue is now before City Council.

Va., Barton Heights, P. O. Richmond.— Reported that \$20,000 of improvement bonds are to be issued. W. L. Ragland is Mayor.

W. Va., Cairo.—Bids will be received by B. R. Ferryman, president Board of Education, until January 1 for \$30,000 of 6 per cent. 10year school bonds.

W. Va., Keyser.—Official: The First National Bank of Keyser purchased on November 11, 1911, at 3 per cent. premium, \$22,000 of 5 per cent. 2-9-year Mineral county bonds for subscription to stock of Twin Mountain & Potomac Rallroad; denomination \$500; dated September 1, 1911.

W. Va., Parkersburg. — An official letter says that nothing has been done in regard to new bond issue. Frank Good is City Clerk.

At Bennington, Okla., bids will be received until 8 P. M. December 15 for \$20,000 of 6 per cent. 25-year water-works bonds. Further particulars will be found in the advertising columns. At Palmetto, Fla., bids will be received until 10 A. M. December 14 for \$15,000 of 6 per cent. 20-30-year bonds. Further particulars will be found in the advertising columns.

At Laurinburg, N. C., blds will be received until 10 A. M. December 4 for \$30,000 of Laurel Hill township and \$20,000 of Spring Hill township 6 per cent. 10-30-year road bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The National Bank of Savannah, Ga., it is reported, will establish a savings department.

The Bank of Cameron at Cameron, S. C., will, it is reported, increase its capital from \$15,000 to \$25,000.

The Sullivan Bank & Trust Co. of Montgomery, Ala., will, it is reported, increase its capital from \$100,000 to \$250,000.

the Germania Savings Bank & Trust Co. of Memphis, Tenn., proposes, it is stated, to increase its capital from \$25,600 to \$50,000.

The Bank of Sumter at Sumter, S. C., according to press dispatches, has been granted permission to increase its capital from \$75,000 to \$200,000.

The thirty-seventh annual convention of the American Bankers' Association is being held in New Orleans, La., from November 21 to November 24, inclusive.

The Citizens' Savings Bank, Washington, b. C., has purchased the Home Life Bidg., 15th and G Sts., a modern steel fireproof building, at a cost of about \$330,000.

The American Exchange Bank and the Commercial National Bank, both of Greensboro, N. C., are reported to have consolidated undtr the name of the American Exchange National Bank. The total resources of the consolidated institutions are said to be in excess of \$2,000,000.

B. Heinrichs will, according to press dispatches, be State agent of Missouri, with headquarters at St. Louis, for the National Liability Co., which is being organized at Cincinnati by Cincinnati and St. Louis people. The company will operate in Ohio, Illinois and Missouri, and will have a capital of \$100,000, with \$80,000 surplus.



THEN comes the matter of insurance. You get out your policy and note the company in which you are insured. Certain questions should not arise to worry you at such a time.

You should not be worried by the question of whether you are insured in a company that dickers and delays over settlement.

You should not be worried over the question of whether the company can pay the claim.

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SALES AGENTS to sell feed-water heat-rs, evaporators, condensers and other power-lant equipment; guaranteed territory; com-lission. Address Fisher, 90 West St., New

WANTED—Traveling or local men; all sec-ions of the country; profitable side line; numission or salary; good men average 00 weekly. For particulars address The un Chemical Company, Richmond, Va.

AGENTS WANTED to sell lubricating oils, belts, hose, paint, varnish, to contractors, antio owners, mills, factories, etc. Exclusive territory to right party. Oil experience unnesessary. Manufacturers' Oil & Grease Co., Cleveland, Ohio.

SALESMAN.—An excellent opportunity for a bright, snappy salesman to represent, on a strictly satisfactory commission basis, a first-class leather belting manufacturer, with specialties. No use for any but good men, and references must accompany application. The Ulmer Leather Co., Norwich, Conn.

A LARGE machinery manufacturer of gasoline engines, steam pumps and electrical goods, having offices in several Southern cities, desires to employ three first-class experienced salesmen for the Southern territory. Address, with full particulars, No. 891, care Manufacturers Record.

WANTED—Representatives in the North West and East to sell our apple orchar tracts in the famous Yonah lands of North east Georgia. Address Georgia Developmen Co., 316 4th Natl. Bank Bldg., Atlanta, Ga.

AGENTS FOR FLORIDA CITRUS AND VEGETABLE LANDS.—Responsible men wanted to sell land on commission basis. Our property is in the Tampa district near the Gulf of Mexico, the recognized location for growing to best advantage citrus fruits. Every variety of productive soil. Suitable for truck growing and general farming. Property divided in ten-acre tracts. Write D. F. Conoley, President Tampa & Tarpon Springs Land Co., Tampa, Fla.

AGENCIES WANTED

AGENCY WANTED. — A well-established firm of St. Louis wants one or two more good agencies from some good reliable manufacturer of railroad specialties; can give best of references. Address No. 888, care Manufacturers Record.

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EXECUTIVE position wanted by American nowing four languages, who has traveled in oreign countries for a number of years and as excellent knowledge of business conditions abroad. At present with large corporation in this country. Will go anywhere, ddress No. 889, care Manufacturers Record.

WILL INVEST, with services, \$1000 in meritorious business, executive or sales department; must stand investigation; can increase investment when warranted; experience in large operations and handling men; answering, state clearly full particulars; correspondence treated confidentially. Address No. 890, care Manufacturers Record.

AN EXPERIENCED commercial secretary, now employed, desires change; best of reasons; ten years' railroad experience, including four years traveling; familiar with every department; legal, newspaper and publicity experience; very best references as to general standing and result-producing ability. Address No. 876, care Manufacturers Record.

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INVESTIGATION desired of proposition for financing erection of large building on Central Atlanta property; unusual returns. Address E. D., 419 Empire Bidg., Atlanta, Ga.

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WANTED-A party with capital to assist in operating a twenty-five million log con-tract and take half the profits. For full par-ticulars write S. Shafer & Co., Pineville, Ky.

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IF YOU have tracts of good standing timeer for sale and can guarantee to be as repected by the case of the control of the cont

FACTORIES LOCATED, factory buildings in the principal cities to rent, factories, saw-mills, flour mills, warehouses, real and personal property sold or exchanged. Timber, grazing and farm lands sold or exchanged. Timber, grazing and farm lands sold or exchanged. Office space, desk rooms and Chicago addresses arranged for. High-class manufacturing stocks and bonds for sale and exchange. Offer what you wish to sell, inquire for what you wish to buy. Negotiations confidential. Business promptly executed. Correspondence invited. Kreis & Company, 167 W. Washington street, Chicago, Ill.

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500 ELECTRICAL HORSE-POWER TO LEASE.—This power is obtained from the Gonzales Water-Power Co.'s reinforced concrete dam of five turbine wheels, with a capacity of 800 horse-power. The dam is located on the Guadalupe-River, within onequarter of a mile of the town of Gonzales, a city of 4000 inhabitants, with two railroads, and within 60 miles of the capital of the State, and 75 miles cast of San Antonio, and 400 miles west of Houston, and within 60 miles of the extensive Texas coast. Our manufacturing interests consist of an extensive brick plant, water-works, electric-light plant, 500-spindle cotton mill, and with gravel beds and other building material cheap and inexhaustible, electric-power ample, are all advantages well worth considering in the location of any manufacturing interest which this town has unusual inducements to offer. Anyone who may be interested in this matter will please write to the company named below. Gonzales Water-Power Co., Gonzales, Texas.

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MAPS OF TEXAS COUNTIES.—We make blueprint maps of nearly all Texas counties and several Louisiana parishes. Write for prices on those desired. Singleton Bryan & Co., Beaumont, Texas.

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IF YOU are interested in purchasing a high-grade typewriter and no not care to invest \$100 asked by the manufacturers, we would like you to investigate our remanufactured machines. Three days' trial allowed. Enterprise Exchange, Inc., 609 B. Baltimore street, Baltimore, Md.

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BARGAIN.—"Apollo" rubber roofing, made of the highest quality wool felt and Glisonite asphaltum; no better roofing manufactured, Prices—Rolls containing 108 square feet, 1-ply, 95c.; 2-ply, \$1.25; 3-ply, \$1.50, £. o. b. cars York, Pa. Rubber Roofing Manufactur-ing Co., 50 Church St., New York City, N. Y.

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MASSACHUSETTS CORPORATION, man MASSACHUSETTS CORPORATION, manufacturing well-established and popular line of medium-priced automobiles, light and heavy commercial cars, are desirous of locating at some central point in the South where there is pienty of skilled labor, best of shipping facilities and some additional working capital can be obtained. Have an exceptionally attractive opening for a live, energetic man with capital. Edward Wilbur, 125 Summer St., Boston, Mass.

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FREE SITES and other liberal assistance cheap fuel; natural gas, oil, coal and abund ant water; six railroads. Address Chamber of Commerce, Wichita Falls, Texas.

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PROFITABLE manufacturing enterprises can obtain financial aid by locating in thriv-ing Southern town with excellent railroad facilities. Address No. 895, care Manufactur-ers Record.

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VICTORIA, TEXAS, head of navigation of Guadalupe River; center of cotton, corn, truck and citrus fruit-growing district of South Texas; country rapidly developing; opportunities for many industries. If interested in the coastal section of Texas, write for bookiet "D" to the Secretary of the Progressive League.

gressive League.

"BUSIEST AND BEST BUILT CITY IN TEXAS," Wichita Falls possesses unsurpassed natural resources and advantages. Offers exceptional opportunities for investors; free sites for manufacturing establishments; cheap fuel; natural gas, oil, coal, electricity and abundant water from the largest body of water in Texas; six railroads; raw material at hand; latest approved public utilities; creosoted wood block pavement throughout business section; over fifty miles concrete sidewalks. Most rapidly developing city in Southwest. Handsome booklet and detailed information upon request. Address Chamber of Commerce, Wichita, Falls, Texas.

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WANTED-A buyer for rotary veneer plant; 1% acres land, office, factory and storage buildings, complete, with side track; good timber; good railroad facilities; can be had at a bargain. Address Gilkey Veneer Co., Marion, N. C.

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FOR SALE—At Sumter, S. C., circular-saw mill, 25,000 capacity; drykiln, planing mill, logging outfit including nine trucks, locomo-tive, log skidder and two miles of 35-pound rails; will take stock in a manufacturing company in payment for same. Sumter Pine & Cypress Co., Williamsport, Pa.

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FOR SALE—A crate box and basket factory and cotton gln in operation and doling fine business in great cotton and trading section; no opposition; owner compelled in take charge of big estate North. C. H. Lope, Rocky Point, Ponder Co., N. C.

MINERAL AND TIMBER LANDS POWERS AND MISCELLA. NEOUS PROPERTIES

WRITE for list New Orleans residence in and factory sites; Louisiana mineral, timber cut-over and farm lands. Orlent Co., Idd 513 Audubon Bldg., New Orleans, Louisiana.

BIGGEST BARGAIN IN ALABAMA.

50,000 acres of hardwood timber, fron and coal
land; Illinois Central R. R. runs through

property; \$12 per acre. Henry Scharffetter,

217 St. Paul St., Baltimore, Md.

217 St. Paul St., Baltimore, Md.

FOR SALE—Boundary of 256,000 acres in State of Durango, Mexico; good ranch, mineral and timber land; contains 500,000,000 feet yellow pine; railway building within 25 miles of lands; 25-mile tramway to new railway can be built at small cost; 100 miles to Pacific port of entry by rail, for ship-loading for use of Panama Canal route and for all American and European shipping markets. We control and can deliver promptly this valuable boundary for \$2.50 per acre; cone-fourth down; one, two and three years for balance. Principals only need reply. Address for particulars, J. C. Lindley, Greensboro, N. C.

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Residence lot fronting beautiful Sheridan Road in Evanston; size 100x160; east front.

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120,000 ACRES MAHOGANY TIMBER IN
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make it a veritable gift for quick action.
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FOR SALE—Two tracts of hardwood timer, consisting of poplar, all kinds of oak hestnut, hemlock, cucumber, ash, lynn, etc. postly virgin forest; one tract on Norfolk.

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FOR SALE—Timber, original long-leaf yellow pine; about 1000 acres; 10,000 feet to the
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long, fine heart timber and easily accessible;
high, dry and healthy; plenty good water;
above of 8000-acre estate; part of balance
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location for mill. O. P. Willingham, Jr.,
Macon, Ga.

20,000,000 ACRES of timber land for sale: 10,000,000 acres of all klads pine, poplar and hardwoods in the South; 10,000,000 acres in Mexico and Brit. Col.; cut as much as 75,00 feet to acre; some tracts have 225 different kinds of wood: will co-operate with good agents. J. C. Bolinger, 117 W. Washington St., Hagerstown, Md.

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TIMBER FOR SALE

TIMBER.—330,000.000 feet of hardwoods for less than \$2 per M. stumpage; on railroad; terms, half cash. We court bona-fide buyers only. Realty Investment Co., Inc., Roanoke, Va.

CUT-OV

00,000 acres 20,000 acres 15,000 acres 30,000 acres red gum) Finest re Wm. R.

10,730 AC lands, 104,0 20,000 acr wood, S. V 36,000 acr Robe LOUISIA acres of a of cultiva miles from

Allen, La.

F FARM A attractive hardwood and ore interested & Security Atlanta, G ARE YO

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Classified Opportunities

CUT-OVER TIMBER LANDS
FOR SALE—10,000 acres cut-over lands on
Gulf coast; price \$000; terms, one-fourth
gash; balance one, two and three years, shalance acres to P. L. Weeks, Enville, Fla.

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CUT-OVER TIMBER TRACTS.

0,000 acres cut-over pine lands, Miss... 36.50

8,000 acres cut-over pine lands, La... 6.00

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8,000 acres cut-over pine lands, Tex... 5.00

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7,000 acres L. L. Y. pine, Fla., cut 3500 ft. 7.00

8,000 acres L. L. Y. pine, Fla., cut 3500 ft. 7.00

8,000 acres L. L. Y. pine, Fla., cut 3500 ft. 7.00

8,000 acres hardwood, cut 10,000 ft. (80%

7,000 acres hardwood, cut 10,000 ft. (80%

9,000 acres hardwood, cut 10,000 ft. (80%

10,000 acres hardwood, cut 10,000 ft. (80%

10,000

19,730 ACRES Louisiana hardwood timber ands, 104,600,000 ft., on Sabine River, \$15 acre, 20,000 acres rich dark bottom cut-over hard-wood. S. W. Arkansas, lands on Ry., \$6 acre, 36,000 acres Louisiana cutover lands, \$5 acre, Robert Sessions, Winthrop, Ark.

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LOUISIANA LANDS, \$7.50 per acre; 800 acres of alluvial cut-over lands, susceptible of cultivation, with natural drainage; 24 miles from Lottic, on Frisco Raliroad; no acents. Owner, F. J. Whitehead, Port Allen, La.

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FARM AND TIMBER LANDS.—We have attractive offerings in farm, yellow pine and hardwood timber lands. We also handle coal and ore properties. Correspondence from interested parties invited. Provident Trust & Security Co., Land Dept., Walton Bidg., Atlanta, (ca.

ARE YOU INTERESTED IN LAND? If so, would like to send you descriptive lists of the best farm and timber lands on earth, in Arkansas, Mississippi and Louisinaa; land rents from \$5 to \$12 per acre; prices from \$10 per acre up. Hurst Trust Co., Nos. 3 and 4 Porter Bldg., Memphis, Tenn.

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Wm. R. Taylor, Land and Timber Investments, 568 Perrin Building, New Orleans, La. Established 1898. Sales over \$6,000,000.

Established 1898. Sales over \$6,000,000.

FOR SALE—5000 acres, East Texas, frontage three miles on river: 12,000,000 feet hardwood timber on tract, 50 per cent. of same white oak; 2000 acres of tract rich bottom land; 75 per cent. of entire tract tillable when cleared. Price \$7 per acre. Rallroad was through land. This is a fine investment, as timber will pay for land twice over. \$2,700 acres in South Texas, black sandy land, with frontage of several miles on river. This is one of the finest tracts of land in South Texas, well improved, and plenty of water over entire tract of land. Price \$15 per acre, and a great investment for capital. Title to both tracts perfect. Address Kendall & Wilson, Palestine, Texas.

WE OWN and offer for sale on easy terms more than 199,000 acres of farming lands in Louisiana and Mississippi. Anyone interested in Southern investments should write us direct and save the middleman's profit. The Lampton Reality Co., 405 Hibernia Bank Building, New Orleans, Louisiana.

	PAR	IN	AND HANG	H LAP	IUS		
50,000	acres	D	urango,	price			
80,250	acres	C	oahuila,	price	2.25	per	acre
80,253	acres	CI	hihuahua,	price	3.00	per	acre
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3,500,000	acres	Cl	ihuahua,	price	2.50	per	acre
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179,648	acres	Ta	maulinas.	price	2.25	per	acre
80,250	acres	Co	ahuila.	price			acre
1,115,640	acres	TE	maulinas.	price	2.50	per	acre
1,335,365	acres	So	nora.	price	.75	per	acre
131,000	acres	So	nora.	price	.75	per	acre
60,900	acres	Di	irango.	price			acre
209,000	acres	Di	irango.	price	2.00	per	acre
100,000	acres	Si	naloa	price	5.50	ner	acre
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COLONIZATION LANDS

TRACT FOR COLONIZATION.—12,000 acres in Lavaca and Jackson counties, Texas; \$\frac{\pmax}{\pmax}\$ per cent. tillable; black waxy and black sandy land. On both sides of Lavaca River. Numerous settlements and good wells of water on tract; all subdivided and ready for colonizing. Will give good terms on this tract. Enll Locke, No. 712-13 Gibbs Bldg., \$\frac{\pmax}{\pmax}\$ an Antonio, Tex.

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PECAN LANDS.—Three 250-acre tracts cleared and ready for planting, located in the center of the pecan belt and most thriving section of South Georgia; soil pronounced most desirable type for pecan culture by Government specialist. For price and particulars address the owner, E. G. Wilson, R. F. D. No. 3, Albany, Ga.

BUY A FIVE-ACRE PECAN ORCHARD in Alabama, "The Land of Plenty." I have fifty tracts of five acres each admirably adapted to this profitable crop. I manage tracts for non-resident owners if preferred, and can furnish best of references. Investigation invited. Write for full information and terms. Oscar V. Case, Fort Payne, Ala.

CABBAGE PLANTS

CABBAGE PLANTS

AN ACRE OF CABBAGES near a town or village will net over two hundred dollars. We have twenty-five acres in cabbage plants of all improved varieties, grown in the open air, and are positively frostproof. Will make large heads. Price, 1000 to 5000, \$1.25 per thousand. Special prices over 5000. Packed in neat boxes and tied in bunches if desired. Special express rates. The Sea Island Plant & Seed Co., Meggetts, S. C.

FARM, FRUIT AND TRUCK LANDS

FLORIDA

ORANGES, grapefruit and tangerine groves, trucking and agricultural lands, building lots, improved and unimproved property on the fruitland peninsula, and in the garden spot of Florida. For pamphlet and other information address G. T. Graham, Crescent City, Florida.

FLORIDA FRUIT AND TRUCK LANDS.—
We offer 10-acre tracts in that part of the State of Florida lying in Hilisboro county and Lake Butier region, in the Pinelias peninsula, on the west coast of Florida, on the Gulf of Mexico; with its elevation and rolling hills is especially suited for fruits of all kinds—grapefruit, oranges, grapes, dates, figs. bananas, peaches and other fruits, as well as vegetables, potatoes, corn, beans, peanuts and all the varieties that can be produced anywhere. The Tarpon Springs district offers the most favorable conditions for farmer, home seeker and investor. Fertile lands in small tracts, easy monthly payments; guaranteed title. Investigation invited. If you want a bargain and a home in the most desirable part of Florida, write now for particulars and reservation. Tampa & Tarpon Springs Land Co., Tampa, Florida.

FOR SALE—440-acre farm at Gainesville.

FOR SALE—40-acre farm at Gainesville, Fla.; within 1500 feet of University of Florida grounds and experiment station; splendid for trucking, stock or general farming; fine creek through property. Price, \$30 per acre. Write for particulars. B. F. Hampton, Gainesville, Fla.

FLORIDA winter home and celery farm, 10 acres, subirrigated, facing St. Johns River: finest fishing and shooting; beautiful bungalow, surrounded by orange trees. Ad-dress Cecil Gabbett, Sanford, Florida.

WHY PALMETTO LEADS.—The 800,000 ooxes of fruits and early vegetables attests the superiority of soil, climate and irrigation necessary to produce such crops. The ease with which such crops are handled by rali and water make it an ideal place for fruit and vegetable growing. The Manatee River, Terra Cina and Tampa bays furnish ideal salt-water fishing, boating and bathing. For further information address The Manatee River Board of Trade, Palmetto, Florida.

FLORIDA FARM, 1200 ACRES RE-CLAIMED LAND, ready for cultivation; drained direct into Biscayne Bay; county rock road; railroad station on property; crop from 300 acres planted this winter will net half as much as price asked for all. Thos. J. Peters, Perrine, Dade Co., Fla.

FLORIDA FARMS ARE FORTUNES.— Our soil similar to fertile sections Iowa, Mis-souri; easy-payment plan. Write for booklet, Milton Land & Investment Co., Marianna, Fia.

FARM BARGAIN.—193 acres, 40 on railroad cleared, 80 in good timber; seven-room house, four-room cottage, barn, horse and wagon, two top buggles; 200 bushels corn, 300 bundles foedder; spiendid cotton land; some of this land will bring \$50 an acre; right at small town; real value, \$7000; for quick cash buyer \$5800 takes it. Subdivided in small farms will bring double this money, King & King, 404 West Bldg., Jacksonville, Fla.

FLORIDA GROVE.—26½ acres red land; quarter mile from railroad station; set in budded trees, best varieties oranges, grapefruit, Avacado pears, mangos; bearing next year. Price \$10,600. Thos. J. Peters, Perrine, Dade Co., Fls.

GEORGIA

400-ACRE FARM; fine residence; well-established dairy; fine location, with good business; 60 head Jersey cattle, number of hogs, mules, hay, grain, machinery, tools, etc.; at 3/2 real value. J. L. Hurst, Eatonton, Ga.

FOR SALE—85-acre farm, three miles north of Cloverdale. Putnam county, Ind.; buildings all in fair shape; all but three acres is fine tobacco land; large tobacco barn, 16x50, built last year; gradual east slope; sugar tree and walnut soil. Price \$8500; no trade. Fay D. Pickens, Cloverdale, Ind.

FOR SALE OR TRADE—275 acres, three miles north Vernon, Jennings county, Ind.; good rock road; 150 acres in cultivation; buildings in very good shape. Price \$60 per acre; consider two-thirds in trade. Fay D. Pickens, Cloverdale, Ind.

LOUISIANA

FORTY-ACRE TRUCK FARMS for sale in the famous strawherry belt of Louisiana; on main line of Illinois Central Railroad. Price 325 per acre on easy terms. Similar lands only a few miles distant are selling as high as 375 per acre. The Lampton Realty Co., 405 Illhernia Bank Building, New Orleans, Louisiana.

LOUISIANA LANDS.—We make a special-ty of improved farm lands, and on applica-tion will mail free list giving price and de-scription of more than a hundred tracts, from 18 acres to 2400 acres. Also write us for hardwood, cut-over and colonization propositions from 1000 to 60,000 acres. Grace Realty Co., Plaquemine, La.

3000 ACRES unimproved land; near city; good for truck or general farm, cattle, hogs, fruit, oranges; 315 acre, cash; or small farms, \$25 acre, 25 per cent. cash, balance small payments. Write for particulars, Walter C. Mosely, \$61 Magazine St., New Orleans, La.

HEADQUARTERS FOR NORTH LOUISIANA LANDS.—Large and small tracts, suitable for plantations, small-farms, orchards
or fruck gardens. Climate, soil and health
conditions here are unsurpassed. The staple
crops of the North grow in this section
alongside of cotton and cane. A great stock
country. Write for particulars, stating your
requirements. References, my customers and
any bank in Shreveport. W. A. Jones, Authority on North Louisiana Lands, Shreveport, La.

CAPITALISTS, INVESTIGATE THIS.—
Best investment in entire South and will double in value in three years. 2690 acres within 1 mile of New Orleans city, 1½ miles frontage on Mississippi River; 1000 acres next to river in cane and rice; balance unimproved. Two railroads run through center of tract, and interurban electric line, with fine shell driveway now being built, will also run through it. No better land (if in Hilnois would be worth \$200 per acre). Will sell entire tract for \$145,000; one-third cash.

Anticipating opening Panama Canal, river traffic is growing rapidly and must reach gigantic proportions. Big conling companies are now leasing river frontage within quarter mile of this property at good price. What will this immense river frontage be worth in five years? If divided in five-acre tracts will sell readily \$200 per acre. It's the opportunity of a lifetime; no safer investment on cartf. For full particulars write E. E. Woodcock, 1716 Milan, New Orleans, Lan.

FORTY-ACRE FARMS in George county, Mississippi, 35 miles northwest of Mobile. This is one of the most-favored general farming sections of the entire South, and no better values can be found anywhere. Price \$25 per acre on easy terms. The Lampton Realty Co., 405 Hibernia Bank Building, New Orleans, Louislana.

2555 ACRES of good hill cotton land for sale; now in successful operation; well supplied with negro labor. The plantation lies between two branches of the Illinois Central Rallroad; nearest shipping point, four miles from the dwelling. The land corners within half mile of the railroad. A sufficiency of cabins for tenants, stables, cribs, cotton pens and all outhouses. Forty-five head of mules and horses, cows, farming implements and feedstuff. Price very low. Terms good. Address A. C. Leigh, Grenada, Miss., bonafide owner of the property.

MISSOURI

FARM, 160 acres: 12 acres orchard; good Improvements; will sell reasonable. Loy King, Rolia, Mo., R. R. No. 1.

NORTH CAROLINA

FARM FOR PROFIT in Eastern North Carolina, the "Nation's Garden Spot." Leads other localities for vegetables, fruits and staple farming on small capital. Homeseek-ers and investors, write Carolina Trucking Development Co., 815 Southern Bldg., Wil-mington, N. C.

DAIRY OPPORTUNITY and land for fruit; also old rice and swamp lands; fine location for dairy, five acres with outbuildings, on tidewater stream, or good for manufacturing site; also 160 acres old rice and swamp lands, rich soil, and 50 acres upland, fine for fruit, especially grapes, uncleared; all adjoining; near railroad and near city (Wilmington, N. C.). 26,000 population. Address Joseph D. Smith, Wilmington, N. C.

SOUTH CAROLINA

FOR SALE—28 acres, edge of town of Central, S. C. (town of about 1500 people), main line Southern road, 28 miles from Greenville; Joins property of Issaqueena Milis; lies well; 24 acres in cultivation; about 10 acres good creek bottoms; suitable for truck, grain or cotton; eight-room dwelling, servant-house, large barn and store in forks Anderson and Pentleton roads. Third cash; balance term of years. Wm. Goldsmith, Greenville, S. C.

MUST BE SACRIFICED.—Improved farm, 238 acres, equipped with stock, tools, feed, cows, poultry, etc. Owner entering other business. Get particulars quick. \$13,000. Address "A," Graysville, Tenn.

FARMERS AND INVESTORS can buy good Texas lands in a country of sunshine and health at \$5 to \$50 per acre that will yield three crops yearly on same acre with a profitable market for all. Interstate Realty & Improvement Co., 213 Temple Bldg., Houston, Texas.

ton, Texas.

IRRIGATED FARM.—350 acres of rich sandy loam, level, and to be irrigated from the famous Elephant Butte Dam, now in course of construction. This land can now be bought for \$35 an acre. Write us for full description, Loomis Bros., El Paso, Texas, Mexican Timber Lands.

TEXAS COAST COUNTRY FRUIT AND FARM LANDS; both large and small tracts for home or lavestment. For information call on or write C. H. Stancliff Land Co., Houston, Texas.

FOR SALE—235½ acres prairie land, located on Santa Fe Railroad and on public road (shelled) only 13 miles from Beaumont and one-quarter mile from Fannett; suitable for general farming or for subdividing into smaller tracts. Title perfect. Price \$27.50 per acre. Also other lands suitable for subdivision. Texas Realty Co., Beaumont, Texas.

JAS. GOODE REAL ESTATE CO., ranch and irrigated lands. Office, Orient Hotel, Pecos, Tex.

THE BLACK LANDS OF NORTH TEXAS are justly famous as the best in the world for the production of cotton, corn, wheat and oats—not one crop, but four. Osce Goodwin's Denton Creek Subdivision consists of more than 8000 acres of this land, situated on the Denton and Wise county line, 50 miles northwest of Dallas, and is offered at reasonable prices—thirty to forty dollars per acre—and upon such terms that any man with a few hundred dollars cash can easily meet. The gradual and steady enhancement in value of such land should appeal to investors, while the very easy terms upon which it is offered should appeal to the farmer without a home. Address Fount Ray, Decatur, Texas.

ORANGE LAND.—Texns gulf coast orange, fig and garden farms; \$15 down and \$15 per month; black loam prairie; good roads, schools, churches and markets; between Houston and Galveston. Send for illustrated literature. Agents wanted. L. Bryan & Co., Houston, Texas.

15-ACRE HOME FOR YOU in Sunny South Land of Texas. Present crop of Irish and sweet pointoes, cabbage, fruits and vegetables worth \$1509; good barn, implements, stock, household goods and fine well of water; good roads, schools, churches and stores close. All for \$3700; easy terms. Interstate Realty & Improvement Co., 213 Temple Bidg., Houston, Texas.

IRRIGATED LANDS. — Parties in the North, East and Middle West interested in improved and unimproved irrigated lands and ranch property in the great Pecos section, communicate with us. Pawkett & Davis, Pecos, Tex.

FOR SALE—8000 acres about 40 miles east of Austin (the capital of Texas), mainly good agricultural land. (Average rainfall for fifty years about thirty-three inches.) A surecrop country. Price \$10 per acre. Geo. W. Walling, Jr., Austin, Texas.

COTTON AND CORN LAND.—12,500 acres, near two good railroads, being one mile from one and two miles from the other; splendid colonization tract; at \$10 per acre; one-fourth cash; balance 6 per cent. Address owner, Dr. C. S. Preston, 1007 Scanlan Bidg., Houston, Texas.

550 ACRES fine potato, cotton, corn and alfalfa land, \$22.50; worth \$50; must sell. N. B. Knight & Co., Houston, Texas.

THE FRIO VALLEY WINTER GARDENS, La Salle county, Southwest Texas, a colony of 109,000 acres level rich black sandy loam in famous artesian belt; grow oranges, figs, Bermuda onions. We are opening Fowlerton, a new town on new railroad in heart of the colony. Guaranteed improvements on townsite. A 16-acre farm and free residence lot on terms of \$15 cash; balance \$10 monthly. Welte for bookiet A, prices, plats, etc. Fowler Brothers Land Co., Frost Building, San Antonio, Texas.

GREATER HOUSTON (Population over 100,000).—Just twelve miles out on Main street (Houston's \$200,000,000 thoroughfare) is located North Houston Gardens; 10-acre tracts only \$800; terms, \$25 cash, balance \$15 per month, no interest; five-acre tracts, \$400; terms \$15 cash, balance \$7.50 per month, no interest; 142-acre improved farm 50 miles from Houston, price \$25 per acre. H. S. Taylor, Scanlan Bidg., Houston, Texas, Member Houston Real Estate Exchange and the Texas Realty Association.

Classified Opportunities

[CONTINUED FROM PAGES 78 AND 79.1

TEXAS is the land of golden opportunities for every American wage-worker; best of them truthfully described in our free booklet. Write Dept. A, Waiter A. Magill, Sec., Bay City, Tex.

\$5 PER ACRE ONLY for section of good agricultural land in the Sunny Coast Country of Texas. Three crops yearly can be raised on the same acre, realizing you \$25 to \$390 per acre for each crop; ready market; schools, churches and railroads close by. Write quick before sold. Interstate Realty & Improvement Co., 213 Temple Bidg., Houston, Texas

WACO, TEXAS.—Central and South Texas farms and ranches a specialty. South Texas ilg and orange lands offer best dividends on investments from \$60 to \$150 per acre. Write us for particulars. Elder & McDonald, Room 614 Amicable Bidg., Waco, Tex.

PASSENGER ELEVATOR FOR SALE

FOR SALE—One Otis short rise hydraulle plunger passenger elevator, installed, but has never been in use; will sell at a sacrifice. For further information write W. C. Meador, Architect, Port Arthur, Texas.

MACHINERY AND SUPPLIES

FOR SALE—One complete set of wagon-hub machinery, almost new. Address No. 833, care Manufacturers Record.

WANTED.—Every consumer in the Southwest to know that the Texas Rolling Mill Jompany of Fort Worth, Texas, manufactures track spikes, track bolts, machine bolts and nuts; also standard sizes of bar iron. One hundred tons always in stock. Prompt hipments our specialty. Satisfaction guaranteed.

FINANCIAL

SAVANNAH, GA.—Real estate loans paying 6 per cent. to 7 per cent. to the investor; absolutely safe. Beautiful sites for winter homes at Vernon View, the salt-water place near Savannah on the Grand Prize Course; ideal winter climate. G. A. Mercer, Law and Real Estate, Savannah, Ga. References: Any bank or trust company in Savannah.

RER CENT. 5-YEAR OKLAHOMA FARM MORTGAGES.—Yes, rate is high, but sure and easily paid; conditions warrant it, and you get benefit; lands cheap, rich; values doubling; 25 years' experience in Southwest; 10 years bank cashier here; know people, lands, laws, resources, local conditions; never lost a mortgage nor had a title contested; abundant references; circular; investigate. J. G. James, Roff, Oklahoma.

PROFESSIONAL

ARE YOU POSTED on twentieth-century patent searching? The engineer service separate from law practice? Read No. 2-B, Inventor's Pocket Library, free for stamp Engineer Searching Co., Fleming Bldg., Washington, D. C.

PATENT ATTORNEYS

EUGENE C. BROWN, ENGINEER and Patent Lawyer, Suite 40 Victor Bidg., Washington, D. C., Member Bar U. S. Supreme Court. Patents and Trademarks; Patent Suits for Infringement. Mr. Brown is especially qualified to prosecute cases in Patent Office and patent litigation from both Engineering and Legal standpoints, having been Examiner in U. S. Patent Office for nine years. Send sketch for advice.

PATENT YOUR IDEAS.—\$100,000 offered for one Invention, \$8500 for another; book, "How to Obtain a Patent" and "What to Invent," sent free; send rough sketch for free report as to patentability; patent obtained or fee returned. We advertise your patent for sale at our expense. Chandlee & Chandlee, patent attorneys, \$78 F street, Washington, D. C.

PATENTS OF QUALITY.—The valuable and salable kind. Send for free advisory information. Reference to clients throughout the U. S. Geo. R. Hamlin, Patent Lawyer, Inventive Age Bidg., Washington, D. C.

IDEAS WANTED.—Manufacturers are writing for patents procured through me. Send for free 72-page guide and "Stepping Stones" (containing over 200 inventions wanted). Personal services. Clients' patents sold free. Trade-marks registered. R. B. Owen, Dept. 12, Washington, D. C.

PATENT WHAT YOU INVENT. - Your PATENT WHAT LOVE ideas may bring you a fortune. Our free books tell what to invent and how to obtain a patent. Send sketch of invention for free opinion as to patentability. Patents obtained or fee returned. Patents advertised for sale free, H. Ellis Chandlee & Co., successors to Woodward & Chandlee, Suite 75 Bornot Bidg., Washington, D. C.

PATENTS Secured or Fee Returned. Send sketch for free report as to patentability. Guide book and what to invent, with valuable list of inventions wanted, sent free; \$1,000,000 offered for one invention; \$16,000 for others. Patents secured by us advertised free in World's Progress; sample free, Victor J. Evans & Co., Washington, D. C.

PATENTS FOR SALE

FOR SALE—My right to make and sell a new triphammer; simple and strong and as good as the best; half million blacksmiths want one. S. K. Jensen, El Campo, Texas.

Sales Dept., Victor J. Evans & Co., Washington, D. C.: W. W. Avery, plier; Frank S. Freeman, rall lubricator; E. L. Back S. Freeman, rall lubricator; E. L. Bach hame fastener; Ole J. Flack, non-refillable bottle; Gustaf Leander, Halvardson, means for ringing church bell; Almon D. Hill bracket; C. W. Call, marine craft; C. M. Cameron, computing scale; Bend, E. Totty, combination implement; F. S. Whitney, non-refillable bottle; A. L. Wernert and F. C. Davlson, valve; Wm. Stinson, beet harvester; C. W. Sterlek, steam cooker; Mn. Anna A. Schrader, car step; Emeric Seagle pressure equalizing valve; Leonard R. Steldspensing bottle and water cooler; E. J. Moore, machine for cutting and setting saveteth; Mrs. Mary E. Van Luven, irrigating vessel; Henry A. Smith, coin drawer; Wm. Trayer and Frank Campbell, musicher holder; W. L. Matchett, train emergency stop; Wernert & Davison, automatic valve.

WE HAVE recently secured the follow

35-TON LOCOMOTIVES

MODEL 60 MARION SHOVELS

4 SADDLE TANK 4 driver 35-ton 14 x 22 Locomotives.

2 Model 60 Marion Steam Shovels.

High grade material, all 1910 make, Florida delivery.

Attractive prices. Address

CHARLES F. AVERY, 45 Broadway, New York City.

PROPOSALS

Plans for Supreme Court Build-

The State Building Commission will receive at Tallahassee, Florida, until Thurday, December 7, 1911, at 10 o'clock A. M. architects' plans for a Supreme Court, Railroad Commission and Library Building la Tallahassee. A general description of the building desired will be furnished upon application to

A. C. CROOM,
Secretary Building Commission,
Tallahassee, Florida.

GAS ENGINE BARGAINS

600-H. P. Horizontal 4-cylinder Double Tandem Gas Engine, built by A. H. Allberger Co. In ual service not over three months. Floor space over all 24 square. Governor wheel, 88 diam.xl8 cg driving pulley, 56 diam.xl8 face; 108 diam.driving sheave having 20 grooves for 11 rose, uplete in every detail, with air tank, compressor, 2 gas regulators, pipings and connections.

Complete in every detail, with air tank, compressor, 2 gas regulators, pipings and connection. Cost. \$20,000.00. Price. \$10,000.00.

50-H. P. Wayne Horizontal Single Cylinder Gas Engine, built by 48° diam.xi6° face; speed In RPM. Little used and in first class condition. Cost. \$1,250.00. Price. \$500.00.

F. H. HERRING, Inc., 30 Church Street, NEW YORK, N. Y.



PROPO

lighting house a:
The builting ment an area of proof co-tile and cations of site at the cations at the cations area. J. Architect.

S EALE this day, Denishing construic station at plans purpose, erning better the state of the st

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\$13

BUILDINGS PUBLIC

CONSTRUCTION BONDS MISCELLANEOUS.

GOVERNMENT PROPOSALS

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PROFOSALS FOR SPILLWAY GATE MA
Chines and Pumps. Sealed proposals will
be received at the office of the General Purchasing Officer, Isthmian Canal Commission,
Washington, D. C., until 10,30 A. M. December 39, 1911, at which time they will be
opened in public, for furnishing the abovementioned articles. Blanks and general information relating to this Circular (No. 661)
may be obtained from this office or the offices
of the Assistant Purchasing Agents, 24 State
Street. New York City, and 614 WhitneyCentral Building, New Orleans, La., and 1086
North Point Sirect, San Francisco, Cal.;
also from the U. S. Engineer Offices in the
following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Md.; Philadelphia,
Pa.; Pittsburgh, Pa.; Boston, Mass.; Buffalo, N. Y.; Cleveland, Ohio, Cincinnati,
Mich.; Milwaukee, Wis.; St. Paul, Minn.;
Chattanooga, Tenn.; Louisville, Ky.; Mobile, Alia., and Galveston, Tex.; Commercial Culb, Kansas City, Mo., and Chamber of
Commerce, Quincy, Ill.; Commercial Club,
Tacoma, Wash, F. C. BOGGS, Major, Corps
of Engineers, U. S. A., General Purchasing
Officer.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., November, II, 1911. Sealed proposals will be received in this office until 3 o'clock P. M. on the 37th day of December, 1911, and then opened, for the construction, complete (including plumbing, gasplping, heating apparatus, electric conduits, wiring and interior lighting fixtures), of the Postoffice, Courthouse and Custom-house at Miami, Florida. The building is of three stories, with basement and unfinished attic, and has a ground area of approximately 7200 square feet. Fireproof construction throughout, stone facing, tile and copper roof. Drawings and specifications may be obtained from the Custodian of site at Miami, Florida, or at this office, at the discretion of the Supervising Architect.

SEALED PROPOSALS will be received at this office until 2 o'clock P. M. on Tuesday, December 19, and then opened, for furnishing all labor and materials incident to construction of buildings for an immigration station at New Orleans, Louisiana, according to plans and specifications prepared for that purpose. Particulars as to limitations governing bidders may be obtained upon application to SAMTEL E. REDFERN, Commissioner of Immigration, Malson Blanche Building, New Orleans, Louisiana.

NEW BOND OFFERINGS

\$130,000 Refunding Bonds

Wanted—Bids for refunding bonds amounting to \$130,000. Bids to be sealed and delivered to the undersigned not later than December 12, 1911. A certified check to accompany each bid. Right to reject all bids reserved.

W. P. MONROE, Clerk, Huntsville, Ala.

Sale of Missouri State Bonds

Three and a half per cent. Capitol Build-

Three and a half per cent. Capitol Bullding Bonds.
Dated January 1, 1912. Optional in eight rears and redeemable in thirteen years.
Issue, 33,500,000,00. To be issued in denominations of \$1,000,00 in coupon form, with interest payable semi-annually on the first of January and the first of July of each year.
These bonds will be sold on Friday, December 1, 1911, at 12 o'clock noon, at the office of the State Board of Fund Commissioners a Jefferson City, Missouri. No bids will be excepted for less than the par value of the bonds, nor unless accompanied by a deposit of money or by a certified check or bank haft upon a solvent bank or trust company of the cities of Jefferson City, Kansas City, St. Louis, Chicago or New York, payable to the order of the State Treasury of Missouri or at least five per cent. of the par value of the bonds bid for.
All bids, together with the security de-

ls, Chicago, er of the State Treasury of the par value least five per cent. of the security demust be sealed and endorsed "Bid souri State Capitol Bonds," and enin a sealed envelope directed to the Board of Fund Commissioners, Jefficity, Missouri, care of James Cowata Treasurer."

closed in a sealed envelope and considered in a sealed envelope and considered in the considered advantageous to the State. The Board of Fund Commissioners reserves the light to reject any or all bids which are not considered advantageous to the State. The Board of Fund Commissioners further reserves the right to issue at least \$500,000,00 of the bonds in the denomination of \$500,00.

Further particulars can be secured by adversing James Cowgili, State Treasurer, Jefferson City, Mo.

The State of Missouri has no other bonded indebtedness, and the payment of the interest and principal of this issue of bonds is provided for by a special tax of 2 cents on the \$100 of assessed valuation. The total assessment of all classes of property in the State for the taxes of the current year is \$1,904,258,191.00.

HERBERT S. HADLEY, Governor, 1001 in the Courbon Auditor.

L894.238,191.00.
HERBERT S. HADLEY, Governor,
JOHN P. GORDON, Auditor,
ELLIOTT W. MAJOR, Attorney-General,
JAMES COWGILL, State Treasurer,
Board of Fund Commissioners of the
State of Missouri.

Five Hundred and Twenty-four Thousand Dollars (\$524,000) Refunding Bonds of the City of Houston, Texas

NOTICE TO BOND BUYERS.

NOTICE TO BOND BUYERS.

Sealed bids will be received by the City of Houston, Texas, until 12 o'clock noon Monday, December II, 1911, for the issue of five hundred and twenty-four thousand dollars (\$\frac{52}{1900}\$) five per cent. (\$\frac{67}{29}\$) Refunding Bonds, bearing date the 16th day of October, A. D. 1911, interest payable semi-annually at the office of the Union Trust Company in the city of the Union Trust Company in the city of New York; said bonds to run thirty (30) years, with an option reserved by the city of Houston to pay same at the expiration of twenty-(20) years.

Each bid for the above issue of bonds must be accompanied by a certified check on a Houston bank, payable to H. B. Rice, Mayor, for one per cent. (1%) of the face value of said issue as a guaranty of good faith; bonds to be delivered and money paid in Houston, Texas.

The city of Houston reserves the right to reject any and all bids.

H. B. RICE,

Mayor of the City of Houston.

H. B. RICE,
Mayor of the City of Houston.

Attest: DAN C. SMITH, JR., City Secretary.

City Bonds For Sale

The Board of Bond Trustees of the City of Arcadia, Florida, will receive scaled bids until 12 o'clock M. November 30, 1911, for the purchase of the following bonds of said city of Arcadia, Florida, to wit: \$29,000 Extension and Improvement of

\$20,000 Extension and Improvement of Water-works. \$20,000 Extension and Improvement of Sew-erage.

water-works.

\$20,000 Extension and Improvement of Sewerage.
\$10,000 Street Improvement and Pavement. Said bonds are of the denomination of \$1000 each, bear interest at the rate of five per centum per annum, are dated June 1, A. D. 1911, and are payable thirty years afterdate. The interest on said bonds is payable semi-annually on the first day of December and on the first day of June of each year. Principal and interest payable at the office of the City Treasurer, Arcadia, Florida.

All bids to be accompanied by a certified check for two per cent. of the amount of the bonds bid for.

This bond issue was validated, confirmed and ratified by special act of Florida Legislature, approved by the Governor May 29, 1911.

The Bond Trustees reserve the right to reject any and all bids.

Secretary and Treasurer.

J. L. JONES, Secretary and Treasurer.

Notice of Bids for Municipal **Bonds**

Bonds

Sealed bids will be opened by the Town of Palmetto, Manatee county, Florida, on the 14th day of December, 1911, at 10 o'clock A. M., for the purchase of fifteen thousand dollars (\$15.000) municipal 6 per cent. gold bonds, dated December 1, 1911, payable in thirty (30) years, with option of paying on or after twenty years; interest coupons payable semi-annually on the first day of April and October of each year.

Said bonds have been validated and confirmed by decree of the Circuit Court of Manatee County, Florida.

Each bid must be accompanied by a certified check for 5 per cent. of the bonds bid for, to be forfeited to the town in case of failure of the bidder to comply with their bid.

The Council reserves the right to reject any or all bids.

Lone by order of the Council this 9th day of November, 1911.

W. M. ROWLETT,
Town Clerk.

\$50,000-\$30,000 Laurel Hill Township and \$20,000 Spring Hill Township, Scotland County, North Carolina, 6 Per Cent. Public Road Bonds.

Scaled proposals will be received by the Board of County Commissioners of Scotland County. North Carolina, until 10 o'clock A. M. December 4, 1911, for the purchase of any or all of \$33,000 six per cent. Public Road Bonds of Laurel Hill Township, Scotland County, N. C., and 20,000 six per cent. Public Road Bonds of Spring Hill Township, Scotland County, N. C.

Bonds to be in denomination of \$1000 cach, dated December 1, 1911, to mature thirty years from date, interest payable semi-annually, one-twentieth of same to be redeemable cach year after ten years from date upon ontice.

notice.
Proposals must be sealed and endorsed "Bids for Bonds" and accompanied by certified checks for 2 per cent. of the amount of bonds bid for, payable to the "Chairman of the Board of County Commissioners of Scotland County." Purchaser to furnish blank bonds. The right to reject any or all bids is reserved.

reserved.

For further particulars address the undersigned.

signed.

By order of the Board of County Commissioners of Scotland County.

W. G. BULE, Chairman;
C. E. MUSE, Clerk to the Board,
Laurinburg, N. C.

The right is reserved to rebids.

BOARD OF WATER COMM
A. H. Wet
Engineer:
GILBERT C. WHITE.

Bonds for Sale

The Town of Enfield, N. C., invites bids for ten thousand dollars' worth of twenty-year six per cent. coupon bonds for an electric-light system. Bonds in denomination of 5500, one bond payable every year. Interest payable semi-annually. No bid considered unless accompanied by certified check or N. Y. exchange for 10 per cent. of bid. Bids opened December 6, 1911. Right reserved to reject any and all bids. Bids should be addressed to and full information can be obtained by addressing

W. T. CLEMENT,

Mayor.

Enfield, N. C., October 25, 1911.

Enffeld, N. C., October 26, 1911.

Water-Works Bonds

Sealed bids will be received by the Board of Trustees of the Town of Bennington, Oklahoma.

Sealed bids will be received by the Board of Trustees of the Town of Bennington, Oklahoma, until 8 o'clock P. M. Friday, December 15, 1911, and opened and publicly read immediately thereafter, for the purchase of twenty (20) one-thousand-dollar (\$1000) twenty-five (25) year 6 per cent. Waterworks Bonds, Interest payable the same to be issued by the Town of Bennington upon approval of proceedings by the Attorney-General of the State of Oklahoma.

The Board reserves the right to reject any and all bids. A certified check for \$1000 must accompany each bid, the three bids mentioned as follows being considered one bid:

mentioned as follows being considered bid:
Three bids may be submitted—one for the bonds, one for the bonds and work, and one for the work, each bid for the bonds to be for cash.

For further information address

JESSE SIPES, Town Clerk.
N. B.—For notice of "Water-works" work see water-works advertisement on this page.

MISCELLANEOUS

100 H. P. Return Tubular Boilers

Specifications, with sealed bids, will be received at the office of the City Clerk of the City of Fernandina, Florida, until 12 noon December 13, 1911, for two 109 H. P. bollers, the return-tubular type, of 125 lbs. steam pressure, 66°X16°. Bollers to be of the beam suspended steel-cased type. The city reserves the right to reject any and all bids. For general information apply to G. L. Baltzell, City Clerk, Fernandina, Florida.

Six-Story Building

Bids will be received until twelve o'clock noon November 20, 1911, for the erection and entire completion of a six-story-and-basement fireproof building at Baton Rouge, La., for Mr. J. K. Roumain, according to plans and specifications and conditions for estimating, which can be had from Favrot & Livaudias, Ltd., Architects, No. 839 Gravier St., New Orleans, La.

Electric Lighting Plant

The Mayor and Commissioners of the town of Entield, N. C., will receive bids at the office of the Mayor for the furnishing of materials and the construction of a municipal electric-lighting plant until 8 P. M. December 6, 1911. For all necessary information address W. T. Clement, Mayor, Enfield, N. C., or C. E. Fairbanks, Engineer, 417 American National Bank Building, Richmond, Va.

Notice to Builders, Steam Fitters, Plumbers and Electricians

Chattanooga, Tenn Chattanooga, Tenn.
Scaled proposals will be received by the undersigned at the Hamilton National Bank until noon December 20, 1911, for the erection of a courthouse building for Hamilton county in Chattanooga, Tenn. For plans and specifications apply to R. H. Hunt, architect, Chattanooga, Tenn. The right is reserved to reject any or all bids.

M. M. ALLISON, Chairman.

Proposals for Pumping Station and Intake for Water-Works

and Intake for Water-Works

Charlotte, N. C.

Sealed proposals will be received by the
Board of Water Commissioners of the City
of Charlotte, at the office of the Clerk, until
8 P. M. December 7, 1911, for building a
pumping building and intake, including the
laying of about 160 feet of 36-inch pipe in
rock trench.

Plans and specifications will be on file at
the office of the Clerk and at the Engineer's
office in Charlotte, N. C.
Copies of the specifications, form of proposal, etc., will be furnished on deposit of
5t, which will be refunded on return of same.
Blueprints will be furnished on payment of
8t to cover cost of same.
As an evidence of good faith each bid must
be accompanied by a certified check for two
thousand dollars (\$2000).

The right is reserved to reject any or all
bids.
BOARD OF WATER COMMISSIONERS.
A. H. Wearn, Clerk.

Engineer:
GILBERT C. WHITE.

Bascule Bridge

Comptroller's Office,
City of New Orleans.
New Orleans, November 8, 1911.
Pursuant to Ordinance No. 7444, N. C. S., sealed proposals will be received at this office until the hour of 11 o'clock A. M. Thursday, December 28, 1911, for the erection of a Strauss Trunnion Bascule Bridge over the Carondelet Walk Canal on the axis of Hagan avenue, in accordance with plans and specifications on file in the office of the City Engineer. Deposit \$1000 with the City Treasure's, and his receipt or certified check enclosed with bid. Bond, 25 per cent. of the

closed with bid. Bond, 25 per cent. of the contract price.

The City Engineer will furnish bidders with a blank form of proposal: no proposal will be considered unless submitted on such form. Bidders must have paid their city license in order that their bids may be accepted.

The city reserves the right to reject any and all bids.

CHAS. B. KENNEDY.

CHAS. R. KENNEDY, Comptroller.

Water-Works

Sealed bids will be received by the Board of Trustess of the Town of Bennington, Oklahoma.

Sealed bids will be received by the Board of Trustess of the Town of Bennington, Oklahoma, until 8 o'clock P. M. Friday, December 15, 1911, and opened and publicly read limited in the sealed by the reading of the construction of a water-works system for said town. The system will include all necessary pumping equipment, tank and tower, about 3300 feet of 6-inch C. I. class A pipe, 2309 feet 6-inch C. I. class B pipe, 9000 feet 4-inch C. I. class A pipe, 14 hydrants and all necessary specials.

Copies of plans specifications.

cials.

Copies of plans, specifications and forms of proposals and contracts may be had from the Town Clerk or Engineers, a deposit of \$10 being required to guarantee their safe return. A certified check for \$1000 must accompany each bid.

The Board reserves the right to reject any and all bids.

Nagel & Peterson of Muskogee, Oklahoma, Engineers.

JESSE SIPES Town Clerk

JESSE SIPES, Town Clerk.
N. B.—For notice of Sale of Bonds see
ond advertisement on this page.

Pumping Engine

Pumping Engine

SPECIAL BOND 188UE OF 1911.

Muskogee, Okla.

The contract of the furnished by the bidder a 8,000,000 gallon horizontal high-duty crank and flywheel pumping engine to operate against 220-foot total head.

The contract contains a bonus and penalty clause, and the city reserves the right to order the removal of the engine if it fails to come within fixed limits of the contractor's guarantee.

A certified check for ten per cent (10%) of the amount of the proposal shall accompany each bid.

Myscifications can be seen and secured at the office of the Consulting Engineer, 114 Liberty 81. New York city, or at the office of the City Engineer, Muskogee, Okla.

The city reserves the right to reject any or all bids and to accept that bid which in the opinion of the Mayor and City Council is for the best interest of the city.

My order of the City Council.

E. H. FLEMING.

Commissioner of Water and Sewers.

ALEXANDER POTTER.

Consulting Engineer.

Commissioner of Water name ALEXANDER POTTER,
Consulting Engineer.

Proposals for the Confederate Memorial Institute, Richmond,

Sealed proposals will be received by the Hon. J. Taylor Ellyson, President of the Confederate Memorial Association, at his office, 294 Mutual Building, Richmond, Va., until 12 o'clock M. on Monday, December 18, 1911, and then opened, for the construction. complete (except heating and ventilating apparatus, electric conduits and wiring, gasting and specifications of Bissell & Sinkler, Archivetta, 895 Balley Building, Philadelphia, Pa. Copies of the drawings and specifications of Bissell & Sinkler, Archivetta, 895 Balley Building, Philadelphia, Pa. Copies of the drawings and specifications and forms of proposals may be obtained from the above architects on or after Friday. December 1, 1911. Each application must be accompanied by a certified check for \$190, payable to the order of the Confederate Memorial Association. The copies of the drawings and specifications must be returned in specification with the proposals, whereupon the above check will be returned and condition the drawings and specifications of the sum of \$25 will be forfeited and deducted from the above check. The right is reserved to reject any or all bids.

The contractor to whom the award is made will be required to furnish a bond of a surety company in the sum of 50 per cent. of the amount of the contract. Guaranteeing the faithful performance of the contract. Copies of the drawings and specifications may be seen also at the office of the Confederate Memorial Association, 924 Mutual Building, Richmond, Va.

Special Advertisements of General Interest.

An Up-to-date Wood Working and Saw Mill Plant for Sale

Complete in every particular. Covering 21/2 acres of land in the center of Norfolk, now doing a business of over \$100,000 per year. For sale cheap.

Details furnished on application.

ABBOTT MORRIS & CO.

GEORGIA FARM LAND FOR SALE

About 10,000 acres fertile farm land within 38 miles of Savannah, Georgia; healthy location and good water, suitable for colonization. A good stand of yellow pine timber, estimated at 20,000,000 feet and thousands of cords of wood. Located for seven miles on two main line railroads, giving low freight rates, secured by water transportation competition, to Northern markets, with all-year markets close at hand. Will not divide tract. Will sell outright or put in property and take interest with financially able developing company.

W. W. ROBERTSON, Owner

NORFOLK, VA.

HOSIERY MILL FOR SALE

A manufacturing plant adapted to the production of hosiery, situated in a town of four thousand population, is offered for sale at a very low price. Size of building, stories, mill construction, with metal roof; boiler, two engines, shafting factures, tools and other appliances go with this property at \$4000. Switch & Western Railway leads to plant. An abundance of female labor. If inter H. LaBaume, Agr'l and Ind'l Agent, Roanoke, Va., referring to File M-3870

PLANING MILL FOR SALE

This plant is located in a progressive city in the Valley of Virginia at the junction of two lines of railway. This city has a population of 3500. Mill is modern in every appoint ment; doing a profitable business, but on account of ill-health the owner is compelled to sacrifice. If interested, write F. H. LaBaume, Agr'l and Ind'l Agent, Roanoke, Va., refer ring to File M-3786.

If interested in agricultural, industrial, mining or commercial propositions, do not fall to write for literature descriptive of your requirements to F. H. LaBaume, Agr'l and Ind'i Agent, Norfolk & Western Rallway, Roanoke, Va.

SUBJECT TO LEASE



Hotel Dempsey

Midland City Hotel Company OWNERS

MACON, GEORGIA

WILL BE COMPLETED; BY

October 1, 1912

SUBJECT TO LEASE

EXPERIENCED HOTEL MAN

TEN YEARS OR MORE WILL CONTAIN

Over 200 Rooms All Modern Improvements

N. M. BLOCK, Chairman

Three Cotton Mills for Sale

Central Mills, 7168 spindles Spalding Cotton Mill, 9984 spindles Boyd-Mangham Manufacturing Co., 13,888 spindles

The entire plants, including all real estate, mill buildings, tenement houses, etc., of the three above cotton mills, in bankruptcy, located in and near Griffin, Georgia, will be sold separately at public sale before the Court House door in Griffin, Spalding County, Georgia, on Saturday, December 9th, 1911, between the hours of eleven o'clock in the morning and four o'clock in the afternoon, to the highest bidder.

For description of the properties, conditions of sale and other information, address any of the undersigned trustees.

T. E. PATTERSON,
WILLIAM H. BECK,
Griffin, Ga.
ROSSER & BRANDON,
SMITH, HASTINGS & RANSOM,
Atlanta, Ga. T. E. PATTERSON. Attorneys for Trustees.

ROSWELL H. DRAKE, Griffin, Ga JOHN K. OTTLEY, Atlanta, Ga. T. D. MEADOR, Atlanta, Ga.

BY J. E. CONANT & CO. - - Auctioneers OFFICE, LOWELL, MASSACHUSETTS

The extensive properties known as the plant of the

NORFOLK, VA. VICTOR KNITTING MILLS

COHOES Adjoining the City of Troy and NEW YORK STATE

are by decree of the United States Circuit Court to be disposed of to the highest are by decree of the United States Circuit Court to be disposed of to the highest bona fide bidders at public sale in lots to suit purchasers—large Textile and Industrial center; exceptional supply of skilled labor; remarkably large, cheap, and reliable power knocking at door—Four parcels of high-class manufacturing realty erected in 1890, 1894 and 1899, two valuable water power leases in perpetuity from the Cohoes Company; 1214 lots of modern machinery and mechanical equipment; 1619 dozens of finished underwear; 2640 dozens of sweaters; 51 large lots of merchandise in process; 103 large lots of supplies; 6756 lbs. of thread; 6693 lbs. of yarn; 6634 tons of stock. On Thursday, the 7th day, and Friday, the 8th day of December, 1911, upon the premises, regardless of any condition of the weather, promptly at half-past nine o'clock each forenoon. Illustrated and descriptive catalogue in detail upon application at the office of the auctioneers, where all inquiries must be made.

John A. Nuttail, Walter H. Wertime, Matthew H. Davidson, Trustees,

Choice Factory Sites FOR SALE

In Canton, the Industrial Suburb of Baltimore

Many different industries are thriving in Canton, but we an still offer a number of favorable sites, both water front can still offe and inland.

and inland.

The B. & O. and the Pennsylvania Railroads run right through the properly. Transportation facilities all that could be wanted. Raw material for almost any kind of industry easily obtained. The Southern market near at hand.

We want to hear from newly formed manufacturing concerns as well as from existing plants that contemplate moving or establishing a branch plant.

Detailed information gladly and promptly given.

J. LINDSAY CLARK & CO.

State Bank of Maryland Building

BALTIMORE, MD.

Notice of Public Sale by the Trustee of the Property of the

GEORGIA COTTON MI

of Dublin, Laurens County, Georgia

Notice is hereby given that the undersigned Trustee, under that certain Mortgage Deed of Trust executed by the Georgia Cotton Mills, a corporation of Dublin, Laurens county, Georgia, on the first day of March, 1909, recorded in the office of the Clerk of the Superior Court of the said county of Laurens in Book 54, pages 19 et seq., to secure the issue of bonds therein mentioned, and also as Trustee under that certain other Mortgage Deed of Trust executed by the said Georgia Cotton Mills on the first day of October, 1910, recorded in said Clerk's office in Book 58, pages 510 et seq., to secure the issue of bonds therein mentioned, defaults having occurred under the provisions of both mortgages, will sell at public outcry, to the highest and best bidder, and in accordance with the terms and provisions of the said Mortgage Deeds of Trust, at Dublin, Laurens county, Georgia, before the County Courthouse door, between the legal hours of sale, on the first Tuesday in December next, to wit, on Tuesday, December 5, 1911, all the property described in the said two Mortgage Deeds of Trust and mortgaged or intended to be mortgaged thereby, to wit.

That tract of land containing sixty-three and sixty-five hundredths (63.65) acres, more or less, situated in said county of Laurens, State of Georgia, in the three hundred and forty-second (342) district G. M., and being a part of lot of land number one hundred and sixty-four (184), and described in a plat recorded with a deed from W. W. Robinson to the Dublin Cotton Mills, dated November 29, 1899, in the office of the Clerk of the Superior Court of Laurens County in Book 8 of Deeds, folios 54 and 55; also that tract lying in the First Land District of Laurens county, Georgia, known as the Robinson Mill Place or Lot. containing twelve (12) acres, more or less, iess two (2) tracts of two (2) acres, being in the First Land District of said Laurens county. The cotton-mill buildings and machinery of the said Georgia Cotton Mills being located on said property.

Also, all the entire

THE CITIZENS' AND SOUTHERN BANK, By M. B. Lane, President,

Trustee, Savannah, Georgia.

ADAMS & ADAMS, Attorneys for Trustee, Savannah, Ga.

The u the U. S. suit of Thompses for sale lowing to Davie of Davie

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BELLE ISLAND TRACT

On Lake Lee, Washington County, Mississippi

No \$150 per acre land in Illinois, or any other Northern or Western Wheat or Corn State, can equal in annual money profit, per acre, the land on this Island.

Belle Island has both railroad and river shipping facilities. About 5 miles long and 2 miles wide. Lake-Lee one-fourth mile wide, 10 to 60 feet deep, and about 12 miles long. Beautiful body of water, noted for its abundance of fish, and river front of over 2 miles. Exact number of acres not known, but probably 7000. Will yield over one bale per acre, often 11/2 and 2 bales. Rich flood-fertilized soil and vapor-laden air from surrounding lake and river make the peculiar combination which specially adapts it for raising long staple cotton, selling from 15 to 30 cents a pound, according to length of staple. Greenville, with over 10,000 population, only 9 miles distant by railroad, where entire Belle Island crop could be sold, on any business day of the year,

Only large tract in Yazoo Delta, with Mississippi River at one end and railroad at the other end, and nearly surrounded by navigable lake. No one can be qualified to estimate the bargain to be had until examination of this

Circular, with full particulars, sent on request.

Atwood Violett,

20 Broad Street,

NEW YORK

VALUABLE **WEST VIRGINIA TIMBER** FOR SALE

he undersigned, appointed Receiver by U. S. Circuit Court at Clarksburg, in the tof David Burns et al. vs. Jno. K. mpson, Marshal and others, hereby offers sale all the timber standing on the foling tracts of land belonging to the estate David Burns, and G. W. Burns, and of ms Bros.;

Burns Bros.:

1. About 2300 acres in Upshur county, West Virginia, lying on Right and Left forks of the Little Kanawha River in several contiguous parcels, known as the Burns lands. This land is well timbered and remains in virgin forest, except as to large poplar, which was removed twenty years ago.

2. About 1669 acres in Braxion county.

removed twenty years ago.

I about 1050 acres in Braxton county,
West Virginia, lying on waters of Gulf Run
and England Run, tributaries of Little Kanawha River. This body of land, also, made
up of several contiguous parcels, is known
as Burns lands. The larger poplar and oak
have been removed for over twelve years,
but much valuable timber still stands.

The fitles to all of these lands are be-

The titles to all of these lands are be-lieved to be perfect.

lieved to be perfect. Scaled bids will be received by me at Par-kersburg. West Virginia, until noon on the 15th day of December, 1911, for all the timber on one or both of the two tracts above mentioned, and the right is reserved to reject any and all bids.

Each bidder shall name a gross sum for all the timber per tract or tracts.

Terms: One-third cash, and balance in six and twelve months, with interest on notes with good security. Two years allowed from date of decree confirming sale for removal of timber.

WALTER E. FLEMING, Receiver,
Parkersburg, W. Va.
VAN WINKLE & AMBLER,

Complete Saw Mill Plant, Dry Kiln and Logging Equipment

FOR SALE

Mill has a daily capacity of 25,000 feet. Logging outfit consists of Locomotive, three and one-half miles of tramroad and six log trucks. Eighteen to twenty million feet of choice Pine timber, well blocked. Mill located about 35 miles south of Savannah, on the Seaboard Air Line Railway. Fifteen to twenty million feet additional timber can be had in easy reach of this plant. For full particulars address

ALBERT FENDIG & CO., Brunswick, Ga.

FACTORY SITES FARM LANDS

Business Opportunities, Timber Lands, Realty Investments

We will take pleasure in submitting information pertaining to either of the above departments.

S. L. NUSBAUM & CO. 600 Citizens' Bank Bldg. Norfolk, Va.

BARGAIN BANKRUPT SALE

A well-equipped Planing Mill with the necessary out-buildings

will be sold on the 5th day of December, 1911, before the Court House in the City of Augusta, Ga.

The plant consists of a Moore Dry Kiln, 80-horse power engine, complete, and boiler, planers, resaws, gang edger, lumber trucks, blow pipe system, cut-off saws with the necessary shaftings, pulleys, belts, etc.

No bid will be accepted unless accompanied by a certified check for 10% of bid.

C. V. McAULIFFE, Trustee in Bankruptcy, Dixie Lumber Co.

Stone Crushing Contractor Wanted

Contractor with portable stone crusher wanted to crush about 2000 perch near Balti-more, Md. Stone will be furnished. If in-terested, address

"CRUSHER." Care Manufacturers Record.

ASSETS REALIZATION COMPANY

Capital \$10,000,000

Will loan on security requir-ing special investigation or close supervision, and not available for bank loans. Large enterprises financed. Prompt investigation of security offered, whatever its character or location.

Correspondence Invited NEW YORK PHILADELPHIA

25 Broad St. Lafayette Bldg CHICAGO Ptret National Bank Building

BRIDGE PLANT

FOR SALE ON

SOUTHERN RAILWAY

Side track to plant, buildings, machinery all ready to operate. Will sell at bargain.

For full information address

W. E. SHARPE **BURLINGTON, N. C.**

Stone Quarry & Crushing Plant

Location, Wake county, North Carolina.
Steady demand for entire output at good prices. No other quarry in this section.
Capacity, 300 tons crushed stone per day.
Will sell cheap.
AMERICAN STONE CO.,
P. O. Box 538, Richmond, Va.

NEW MODEL

OF THE

STANDARD **TYPEWRITER**



HAS TWO-COLOR RIBBON. BACK-SPACER, TABULATOR

and many new and valuable patented features that other typewriters do not have

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Send for "The Royal Book," 32 pages of typewriter information-the finest typewriter catalog ever issued. Yours for a postal card.

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DYNAMOS and MOTORS Woodworking Machinery

Direct Connected Units **Belled Generators** Alternating Current Motors Direct Current Motors

300 OF THEM

guaranteed. In stock for immediate delivery.

We Buy, Sell, Repair, Rent or Exchange.

E. LEVENE & CO.

124 N. 3rd. St., Philadelphia

Gas Power and Electrical Equipment FOR SALE

A 105-horse-power "Otto" Gas Producer ingine; engine, dynamo, producer, switch-oard and electrical equipment, complete. Trected one year ago. No expense was pared to make this a model installation. articulars and description can be found on age 120 of the March number of "Metal Inustry." Can be inspected upon application. THOMAS A. PAINTER,

I.ATHES.

10x44 Lodge & Davis, chucks fitted.

11x4 Mann, R. & F.
14x6 Davis, plain rest.

14x8 Le Blond, plain rest, chuck, P. C. F.
14x6 Eavis, plain rest, chuck, P. C. F.
14x8 E. Blond, plain rest, chuck, P. C. F.
14x8 Fay & Scott, plain rest, P. C. F.
14x8 E. Lodge & Shipley, patent head chuck.
14x1 E. Lodge & Shipley, patent head chuck.
14x1 E. Lodge & Shipley, patent head chuck.
14x14 Reed, high speed.
14x14 Peat, high speed.
14x12 Pratt & Whitney, C. R., P. C. F.
14x14 Reed, high speed.
14x14 Poutlam, C. R., P. C. F.
14x14 Rowenth Hilles, C. R., triple geared.
14x14 Powell, compound rest, P. C. F.
14x14 Powell, compound rest, T. G.
14x14 Powell, compound rest, T. G.
14x14 Powell, compound rest, P. C. F.
14x14 Niles, compound rest, P. C. F.
14x13 Fitchburg, compound rest, P. C. F.
14x12 Fitchburg, C. R.

SCREW MACHINES.

SCREW MACHINES.

SCREW MACHINES.

2x24 Jones & Lamson, flat turret.

20x6 Bardner & Oliver, friction head.

No. 2 %" Warner & Swasey, wire feed.

No. 14 Garvin, wire feed, friction head.

No. 1 Garvin, wire feed.

%" National Acme, automatic.

No. 6 Brown & Sharpe, friction head.

1" Smurr & Kamen, wire feed.

"", %", 1" and 2%" Pratt & Whitney automatics.

No. 2 3" Reatt & Whitney wire feed.

automatics. No. 3 2" Pratt & Whitney, wire feed. No. 2 %" Pratt & Whitney, wire feed. No. 1 7-16" Pratt & Whitney, wire feed.

MILLERS. No. 2 Cincinnati, plain.
No. 4 Cincinnati, plain.
No. 2 Le Blonde, plain, back gears.
No. 2 Pratt & Whitney, Lincoln pattern.
No. 2 Pratt & Whitney, Lancoln pattern.

LATHES.

SECOND-HAND

Machine Tools

Prentiss Tool & Supply Company

149 Broadway, New York

24" x 12" four-side

FAY ENDLESS BED PLANER

In condition to run immediately.

JAMES H. BROWN, 287 Clifton Place, Brooklyn, N. Y.

100 H. P. Engine FOR SALE

One McEwen Center-Crank Engine, 13x14, normal 100 H. P. This engine is in the very best of condition and is for immediate delivery. Will sell at less than real value to quick buyer.

ELECTRIC LIGHTING PLANT,

100 K. W. Thoroughly overhauled and fully Direct Connected Set

Consisting of a 100 K. W. 125 v. 8-pole Westinghouse Generator, direct connected to a 14x20x18 tandem Compound Erie Ball Engine. \$1500.00 f. o. b. Cars

GEORGE SACHSENMAIER CO.

43-45 No. 3rd St., PHILADELPHIA, PA If you need a Dynamo and Motor, get our price.

LIGHTING DYNAMOS

40-light General Electric, speed 1350,
75-light Allis-Chaimers, speed 1300,
100-light Triumph, speed 1400,
150-light Westinghouse, speed 1200,
200-light Westinghouse, speed 875,
250-light Westinghouse, speed 825,
300-light General Electric, speed 900,
450-light Westinghouse, speed 600,
Condition Guaranteed.
110-volt.
250-volt.
A. C. and D. C. Motors and Generators in
stock. Send for Bargain List.

MILLER-OWEN ELECTRIC CO., New York. 217-219 First Ave., Pittsburgh, Pa.

No. 1 Cincinnati, universal. No. 2 Brown & Sharpe, plain. No. 3 Cincinnati, plain. No. 12 Brown & Sharpe, manufacturers.

DRILLS.

DRILLS.

20" Prentice Bros., power feed.
15" Slate, sensitive.
4" Bickford, plain radial.
No. 25 Foote-Burk, high speed.
F 12" Baker Bros.
10-spindle Gardam, adjustable.
40" New Haven, sliding head, back gears.
30" Gang, plain radial.
5' Bausch, plain radial.
7-spindle Slate, bedstead.

SHAPERS.

MISCELLANEOUS.

12" Gould & Eberhardt, crank. 15" and 20" Hendey, friction. 13" Lodge & Davis, crank. 28" Cincinnati, geared.

MISCELLANEOUS.

Boring Mill, 37" Bullard, 2 heads.
Grinder, Seliers, universal tool.
Planer, 36x36x8 Betts, 1 head.
Planer, 36x36x8 Betts, 1 head.
Planer, 36x36x12 Betts, 4 heads.
Planer, 48x46x18 Pond, 2 heads.
Planer, 48x46x18 Pond, 3 heads.
Boring Mill, 10' Pond.
Grinder, Walker, electric surface.
Grinder, Walker, electric surface.
Grinder, No. 2½ Bath, universal.
Gas Engine, 3 H. P. Fairbanks.
Hammer, 50 lbs., Bradley, compact.
Hammer, 1000 lbs., Pratt & Whitney, di
Gear Cutter, 16x4 Gould & Eberhardt.
Grinder, 12x42 Landis, universal.
Pipe Machine, No. 6½, 6", Merrill.
Slotter, 16" Bement, motor driven.
Keyseater, No. 2 Davis.
Brake, 8' Niagara.
Pipe Machine, 3" Jarecki.
Gas Furnace, No. 17 American.

One 26"x14' Lathe. One 20"x10' Lathe. One 18"x8' Lathe. One 14"x6' Lathe. One 30 H. P. Traction Engine. One No. 2 B. Koehring Cement Mixer. One No. 1 Smith Mixer, with gasoline engine. One No. 1 Smith Mixer, with boller and engine. Two 125 H. P. Hor. Tub. Bollers. Two 110 H. P. Hor. Tub. Bollers. One So 1 H. P. Hor. Tub. Bollers. One So 1 H. P. Portable Boller on skids. Three Berlin Planers and Matchers, 4"x5". One Mississippi Planer and Matcher, 4"x14". CHAS. T. LEHMAN. Birmingham. Ala CHAS. T. LEHMAN, - Birmingham, Ala

Do You Need MACHINE TOOLS?

REEPTHE FACTORY RUNNING MOTORS TO RENT

REGORY

16th and Lincoln Sts., CHICAGO.

We have the largest stock of second-hand electrical machinery in the world. Send for our 'monthly Bargain sheet," showing complete stock with net prices. We can save you fully one-third. All machines completely overhouled, tested and shipped practically 'as good as new."

FOR SALE CHEAP

Four 100 H. P. Portable Return Flue Boilers. 12"x15" Erie City Engine. 12"x16" Birmingham Engine. 18"x22" H. S. & G. Engine. R. Hand Knife Grinder. 10" Outside Molder.

DYNAMOS AND MOTORS

I buy, sell, rent and exchange. The best and the cheapest.

THOMAS YEARSLEY

211 N. 3rd Street Philadelphia, Pa.

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Tampa, Fla.

Tampa Machinery Exchange,

ELECTRIC CO.

our warehouse at prices that will materially reduce your equipment bills. Let us give you details of some of the following tools.

	EATHES	
1	60"x16" "Fifield," internally geared	
	face-plate	\$1400.00
l	48"x12" "Fifield," internally geared	
	face-plate	1250.00
Z	42"x32" "Draper," one has taper at-	
	tachment, \$1400.00 each; taper	
	\$100.00 extra.	
l	40"x18" "Fifield"	1500.00
L	40"x16" "Fiffeld," internally geared	
	face-plate	1250.00
L	38"x18" "Fifield," Internally geared	
	face-plate	1250.00
ı	33"x16" "Fitchburg"	700.00
1	32"x32" "Fifield"	1200.00
ì	30"x14" "Fifield"	475.00
i	20"x10" "Perkins"	400.00
	22"x10" "Fifield"	
ì	16"x6" "LeBlonde"	250.00
	14"x6" "LeBlonde," each	
	14 Au Lebionde, cach	440.00
	PLANERS	
t	52"x52"x23' 9" "Betts," one head	1000.00
l	42"x36"x12" "American," open side	2250,00
	40"x40"x10" "Powell," one head	
	20"x20"x65" "Sellers," one head	
•	at any most period one menditive	*******

	RADIAL DRILLS	
1 72"	"Bickford," plain	650.00
	"Bickford," universal	
	"Bickford," plain	
	BORING MILLS	
1 60"	one head, vertical	400.00
1 37"	"Bullard," two heads, vertical	800.00
1 54"	"Newton," horizontal	450.00
	PIPE MACHINES	
1 10"	"Curtis & Curtis"	250.00
1 6" "	'Cox & Sons''	400.00
1 No.	2 "Eaton, Cole & Burnham," 1	
to	4"	350,00
1 No.	2 "Bignall & Keeler"	240.00

PRESSES

	HAMMERS	
1	1500-lb, steam "McDougall & Potter".	900.0
1	800-lb, steam drop "Bement-Miles"	650.0
	500-lb, "Champion Beaudry"	450.0
	400-lb. "Champion Beaudry"	350.0
1	150-lb. belt-power "Scranton"	325.0

GEAR CUTTER

L. F. SEYFERT'S SONS, Inc.

SPIRAL PIPE

FOR SALE CHEAP

9000 feet Galvanized Spiral Riveted Flanged Pipe, size 9^s. Heavy gauge, in first-class 'serviceable condition, suitable for dredge work, air pressure, etc. Will make very attractive price in quantities.

MARINE METAL & SUPPLY CO. 167 South Street,

NEW YORK CITY.

In revising our manufacturing equipment, we

Used Machine Tools

which we offer at attractive prices

ENGINE LATHES

14	in.	X	- 6	ft.	Flather, Q. C. G.
16	in.	X	6	ft.	Hendey, Q. C. G.
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16	in.	X	8	ft.	Reed.
18	in.	X	6	ft.	Lodge & Shipley, Q. C. G.
18	in.	X	8	ft.	Lodge & Shipley, Q. C. G.
					Lodge & Shipley, Q. C. G.
20	in.	X	8	ft.	Lodge & Shipley, Q. C. G.
					Lodge & Shipley, Q. C. G.
					Lodge & Shipley, Q. C. G.
					Lodge & Shipley, Q. C. G.
24	in.	X	10	ft.	Lodge & Shipley, Q. C. G.
					Lodge & Shipley, Q. C. G.
36	in.	X	12	ft.	Lodge & Shipley, Q. C. G.
36	in.	x	14	ft.	New Haven.
				-	

SPECIAL LATHES
24 in. x 7 ft. Lodge & Shipley Chucking Lathe.
No. 3 Lodge & Shipley Rapid Reduction Lathe.
PLANERS
36 in. x 36 in. x 10 ft. Sellers.

METAL SAWS

No. 3 Nutter-Barnes Cold Saw. Franklin Cold Saw, 3½ in. capacity. Globe Power Hack Saw, 8 in. capacity. Universal Power Hack Saw, 6 in. capacity.

Universal Power Hack Saw, 6 In. capacity.

MISCELLANEOUS MACHINES

Whiton Centering Machine.

Mumford 12 in. x 40 in. Molding Machine.

Write for complete description with prices
of machines in which you are interested.

THE LODGE & SHIPLEY MACHINE TOOL CO. CINCINNATI, OHIO

BARGAINS IN STOCK

Immediate Delivery, Rebuilt and Guaranteed

(2) 18"x34"x48" Tandem Compound reene, 150 lbs. steam, 28"x48" Naylor

Greene, 150 lbs. steam, 28"x48" Naylor Corliss.

25"x48" Wetherill Corliss, 150 lbs. steam, extra heavy 22"x48" Naylor Corliss.

25"x42" Frick Corliss, "Eclipse" pattern.

One (1) 14"x3" Rickard's Corliss.

One (1) each 14"x16", 16½"x18", 14"x28", 12"x24" Buckeye.

One (1) 15"x16" New York Safety Center Crank.

One (1) 10"x30" Brown.

Two (2) 9"x15""9" Westinghouse Automatic Compound.

Compound.

Large assortment of Slide-Valve Engines, all sizes

Sizes.

BOILERS

One (1) 300 H. P. Babcock & Wilcox W. T., 160 lbs. steam, used nine months.
One (1) 250 H. P. Sterling, N.EW.
Two (2) 200 H. P. Heine W. T.
One (1) 72"x18" H. R. T., 100 lbs. steam.
One (1) 66"x16" H. R. T., 125 lbs. steam.
One (1) 66"x16" H. R. T., 125 lbs. steam.
One (1) 48"x20" H. R. T., 125 lbs. steam.
One (1) 250 H. P. Berry, 160 lbs. steam.
Large assortment of Locomotive and Vertical Bollers.

AIR COMPRESORS

18"x1814"x24" Ingersoll-Sergeant.

14"x9"x8"x12" Ingersoll Two-Stage "Imperial" type.

1414"x914"x8" Ingersoll Two-Stage, belt driven.

And many others.

HEATERS

HEATERS

1000 H. P. Berryman Gleaner.
One (1) each 800 H. P. Wheeler; 500 H. P.
400 H. P. and 300 H. P. Berryman.
300 H. P. Wetherlil.
250 H. P. Cochrane.

Two (2) 17"-28"x14"x24" Snow Duplex Pressure, steel water ends.
One (1) 18"x26"x18" Snow Duplex.
Two (2) 16"x1014"x10" Worthington Duplex
Pumps.

Pumps.
One (1) 8" Morris Centrifugal Pump.
One (1) 10" Xi2" Duplex Double-Acting SmithVaile Power.
6"X6" Davis Plunger.
500 H. P. Conover Jet Condenser, complete.
Vacuum and Condensing Pumps, all sizes.

MACHINE TOOLS

Large stock of Machine Tools. Note my advin last week's issue. Send for Special List. Correspondence solicited.

HERMAN L. WINTERER,

IN Reb

3 72"x18'
P. ea
3 60"x16'
P. ea
1 54"x16'
P., 16
1 150 H.
1 150 H.
Large
cal type

30"x48" 28"x48" 24"-44"x 22"x42" 20"x42" 16"x42" Large matic a Horizon

16"-26"x Com 24"x24"3 cu. f 12"x22"4 Line 14"x14"3 330 c 12"x12"3 Large Driven

DIREC 50 K. V Gen-10" R. I 1 160 K thre 2 150 K Gen 3 100 K Gen Large

11"x14" 10"x10" 8½"x12' 7"x10" 7"x8" (6¼"x10 6¾"x10

1 13"x22 200 1 12"-20 160 1 11"-19 H. 2 10"-18 Large

PUMP

48"x20"
to :
36"x16"
36"x14"
22"x18"
20"x10"
20"x10"
18"x10"
18"x10"
18"x8"
15"x8"

No. 2½ tab

16" An 26" Go 20"x30" 20" Sto 14" Sto PG-5 F

Mitts 100-lb. 25-lb. I 50-lb. I 11½" W 48" Ga 36"x12' Two I Gri Two N 800-lb.

127-1

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Rebuilt and guaranteed for immediate delivery

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2 75"/x18" Horizontal Return Tubular, 150 H.

9 ("x16" Horizontal Return Tubular, 80 H.

1 p. each, 125 lbs. steam.
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1, 100 H. P. Manning Vertical Tubular, 125 lbs. steam.

159 H. P. Anning Vertical Tubular, 125 lbs. steam. 169 H. P. Eric City Economic, 100 lbs. steam. 159 H. P. Locomotive, 100 lbs. steam. Large stock of Return Tubular and Verti-cal types, all sizes.

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ENGINES

30"x48" Watts-Campbell Corliss.
28"x48" Reynolds, double. 26"x60" Corliss.
24"4"x48" Cooper Tandem Compound.
22"x42" Greene. 14"x36" Allis.
9"x42" Buckeye. 14"x20" Russell.
9"x42" Allis. 12"x30" Rollins.
Large stock of smaller sizes. also Automatic and Plain Slide Valve, Vertical and Horizontal.

Horizontal.

16".26"x27".17"x30" Laidlow - Dunn - Gordon Compound, two-stage, 1700 cu. ft.

24"x24"x30" Rand Single Straight-Line, 1300 cu. ft.

22"x22"4"x24" Ingersoil-Sargeant Straight-Line, Class A, 975 cu. ft.

14"x14"x14" Hall Horizontal Straight-Line, 330 cu. ft.

14"114"x14" Hall Horizontal Straight-Line 330 cu. ft. 12"x12"x18" Ingersoll-Sargeant, 275 cu. ft. Large stock of smaller sizes and Belt Driven Compressors.

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50 K. W. 125-volt D. C. Westinghouse 6-pole
Generator, direct connected to 10"-18"x
10" Westinghouse Compound Engine, 315
R. P. M.
150-ampere 115-volt American 4-pole Generator, direct connected to 9"x10" American
Horizontal Engine.

tor, direct connected to 9"x10" American Horizontal Engine.

BELTED GENERATORS

1 100 K. W. 220-volt D. C. General Electric, three bearing type, 540 R. P. M.

2 150 K. W. 550-volt D. C. General Electric Generators, 550 R. P. M.

3 100 K. W. 550-volt D. C. General Electric Generators, 650 R. P. M.

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11"x14" Flory, D. C., S. D., 101k motion.

84"x12" Webster, Camp & Lane, D. C., S. D.

7"x16" Lidgerwood, D. C., D. D., 40"x7" boiler,

7"x5" Copeland & Bancon, D. C., S. D.

64"x10" Mundy, D. C., D. D.

WESTINGHOUSE ENGINES
1 13"x22"x13". Westinghouse Compound, 125 113"x22"x13" Westinghouse Compound, 125 200 H. P. 12"-20"x12" Westinghouse Compound, 100-160 H. P. 11"-19"x11" Westinghouse Compound, 80-130 H. P. 2 10"-18"x10" Westinghouse Compound, 65-100

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HEATERS 1 1200 H. P. Webster Open Heater. Large stock smaller sizes.

PUMPS, GAS AND GASOLINE E GINES, STONE CRUSHERS AND GENERAL EQUIPMENT MACHINE TOOLS

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34"x27"x7' Matawan . 27"x27"x5' New Haven. 25"x25"x6' Harrington. 28"x26"x6' Harrington. 28"x26"x7' Wheeler. 30"x30"x8' Pease.

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48"x30" Triple Geared Lathe, raising blocks to 56".

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29"x10" 6" Raha-Carpenter.

29"x10" Harrington, taper attachment.

18"x10" Fitchburg.

18"x8" Raha-Carpenter.

16"x8" Bradford.

15"x8" Carroll-Jamelson.

15"x8" Carroll-Jamelson.

14"x8" American, with gap.

MILLING MACHINES

No. 2A Owen Full Universal, with vertical spindle attachment.

No. 2½ Pratt & Whitney Horizontal Miller, table 11"x5".

SHAPERS

16" American.

36" American.

SHAPERS

16" American.
20" Gould & Eberhardt.
20"x30" Pedrick & Ayer. open side.
20"X Steptoe.

16" Steptoe.

PG-5 Ferracute.

48" Gang Radial. 38" Morris Radial. 2" Hilles & Jones. 29" Plain.

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25-lb. Little Glant Hammer.

50-lb. Little Glant Trip Hammer.

104" Wells Bros. Bolt Cutter.

14" Wells Bros. Bolt Cutter.

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18234 Ohlo Heavy Duty, 1833 Allis, 18220
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18216 Buffalo Compound, 134z15 Taylor,
18316 Atlas, 18x12 Harrisburg-Ideal, 13x12
Phoenix, 12x14 Green, 13x12 Armington &
Sims, 11x16 Atlas, 10x12 Valley, 8x14 Noyes.
Engines—Throttiling.—18x24 Atlas, 14x
18 Sinker-Dayls, 14x14 Lewis Vertical, 12x16
Reed, 12x14 Brownell, 10x16 Bass, 10x12 Atlas,
9x14 Lane & Bodley, 8x10 Eric, 8x8 Industrial.
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90x14, 54x14, 48x14, 44x14, 44x12, 42x12, 36x16, etc.
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26-ton Little Giant Standard Traction Steam
Shovel.

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Holsts, 20, 40 and 60 H. P., 220 volts.

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Irving Park Ave., corner Southport.
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1 16x42 Allis,
1 16x42 Brown,
1 18x42 Lane & Bodley,
1 20x48 Wetherili,
1 22x48 Hamilton,
1 24x42 Atlas,
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Automatic Engines of all sizes,
1 40-ton Corliss Engine Type De La Vergne
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60 K.W., 2300 volt, single phase A. C. generator—with exciter. Also 100 K.W., 550 volt, 600 R. P. M. D. C. generator. Wound to use as motor. All machines are G. E. and have been replaced by larger units.

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Head Tower—Height from track to saddle block 62'.

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Track gauge 31'5". Height of mast 37'6". Length of boom 75'. Stiff legs 14x14". Frame 14x14". Mast 16" square. Boom 16" square. 900' %" plow steel wire rope.

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This Detrick is equipped with one set levers in quedrant for the above mein single line.

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American Hoist & Derrick Co. fittings; 8 16" steel wheels under derrick.

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Only AIR DUMP CAR under absolute control of operator Can be brought back to upright position, after passing center of gravity, before entire contents of car have been unloaded This admits of equal distribution of material on both sides of track, Write THE WM. J. OLIVER MFG. CO., KNOXVILLE, TENN., AND 50 CHURCH ST., NEW YORK, N. V.

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LOCOMOTIVES, CARS. RAILS, SWITCH-ES AND FROGS. STEAM SHOVELS. HOISTING ENGINES, DERRICKS, PILE DRIVERS. CONCRETE MIXERS, STONE CRUSHERS.

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Special Track Work of Every Description

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Not a theory, but a practical tie and fastening, as is proven by several years of constant use under various trunk lines.

Note the "V" shaped centers of the base of these Ties—overcomes center binding, so common in all other Ties; and so conductve to spreading tracks. See the spiking device with its four parts to each Tie; compare these with the eight to twenty-eight parts in every other Tie on the market.

Every one of these parts must be purchased, installed, and constantly watched; any one of them becoming injured or misplaced may cause serious damage and loss of life. Even assuming that ours required constant care and replacing, there are but one-half to one-seventh as many parts to look after and to replace in ours as in any other Tie on earth, and consequently proportionately less parts to get out of order and cause wrecks.

The fewer the parts the lower the cost of maintenance.

Trains are running sixty miles an hour over these Ties, and have been so running for more than five years; yet they have had no repairs or even tightening of the spiking devices.

The only composite Tie before the public today, as investigations will show, and the only one that has sustained itself under actual traffic conditions for any length of time.

The best Tie for terminals, because it is permanent.

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Do you know of a railroad Tie that has been in use under a trunk line railroad for four, or even two years that is in apparently as good condition today as when installed?

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Do you know of a Tie with a spiking device or rail fastening which has fulfilled every claim and far more, in that it has maintained track true to gauge under disastrous wrecks?

We have all of these, and not only one, but hundreds of them in use today, as we can show.

The charter of this company is in course of preparation, and those desiring shares should write at once, since only a limited amount of the capital stock will be sold, all of which will be fully paid and non-assessable. A meeting of stockholders for the election of officers will immediately follow, due notice of which will be given those interested.

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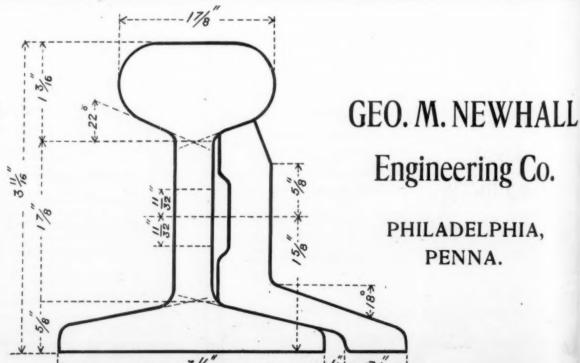
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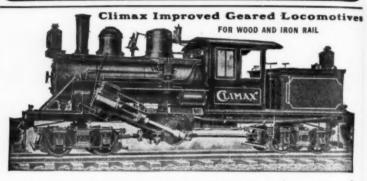
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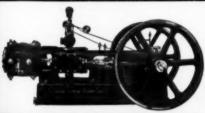
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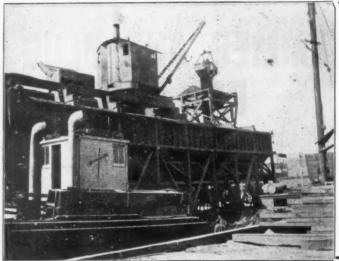
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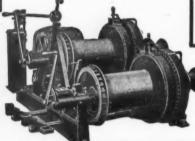
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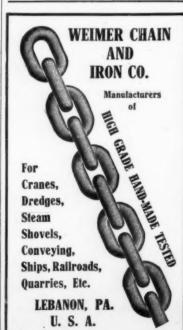
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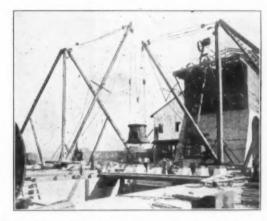
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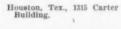
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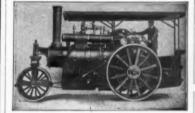
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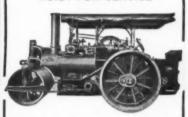
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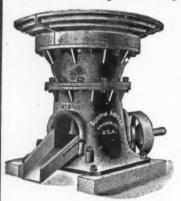
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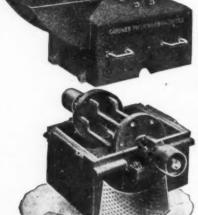
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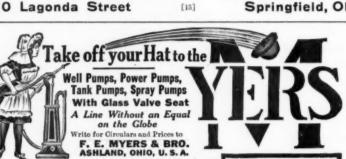
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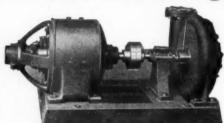
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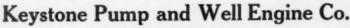
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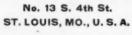
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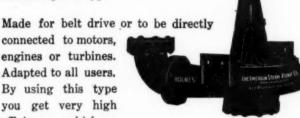
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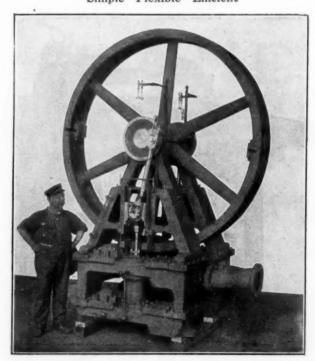
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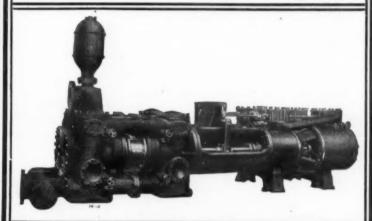


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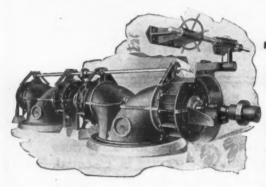


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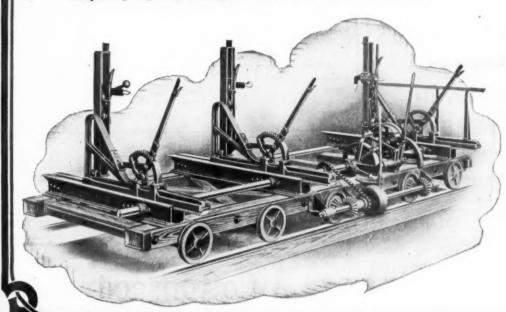
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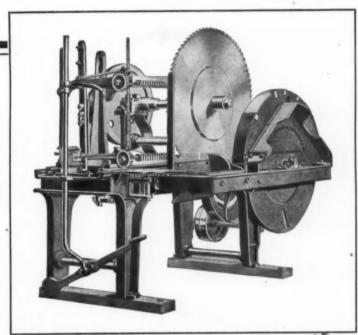
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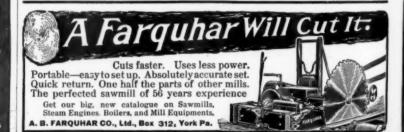
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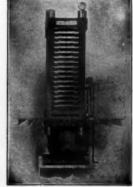
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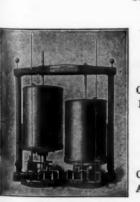
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in the South.

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The Southeast is the logical place for manufacturers to locate The iron, steel, coal, woods, water-power, low-priced, intelligent labor, most favorable climatic conditions, transportation facilities—

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It is confidentially stated by Mr. Taft that in the summer of 1913 ships will be passing through the Panama Canal. Can you not see wonderful possibilities in this fact alone? It means that the South will be the nearest manufacturing section to the great west coast markets of South America.

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Necessity

It is necessity which makes all of America's industries possible. The needs of mankind create a demand for numberless commodities, and thus factories are enabled to flourish. The manufacturer must seek the location which is most favorable to the operation of his plant, because competition makes this necessary. Following are a few reasons why fruit canneries are a necessity of the Southwest and why Texas City is the most favorable location for such an industry.

S

It is a well known fact that climatic conditions of Southwest Texas are very conducive to the successful cultivation of a great variety of fruits. It is a fact, equally well known, that the process of decay sets in on the ripened fruit a good deal quicker here than in the colder climate of the North. As a result, bushels upon bushels and tons upon tons of fruit are annually lost to mankind, all or nearly all of which might be saved by canning.

Two hundred thousand people are annually pouring into the State of Texas. The greater number of these are locating in the Gulf Coast district in the vicinity of Texas City. The development of this section has, as a result, been so marked and rapid as to render the few factories located here utterly inadequate to meet the growing demands. That is why we say

Fruit Canneries

are a necessity of the Southwest and that Texas City is the most favorable spot in the Texas Gulf Coast district.

A further reason is that Texas City is located directly in the heart of a rapidly developing fruit section. Thousands of acres are being cut up into five and ten acre tracts and are being set out to fruit trees. Thousands of dollars in freight charges and in the loss resulting from bruised and decayed fruit might be saved to the grower if canneries were on the ground, to say nothing of the saving to consumers if the cost of transportation were eliminated.

Another important proposition is the fact that at Texas City is being installed the finest and most up to date dock, warehouse and Terminal system on the American seaboard. Established steamship lines operating between Mexican and Central and South American points makes it possible to bring in various tropical fruits from these countries at the lowest possible cost, and the lines to New York, Boston, Baltimore, Liverpool, Havre and Bremen put the cannery in direct communication with the markets of the world.

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West Virginia's Wonderful Wealth

At the recent Land Show held in Pittsburgh, West Virginia had a striking display of its wonderful array of resources, exhibits of which were gathered together by the West Virginia Agricultural Experiment Station.

In direct contrast to the elaborately decorated booths of other States, was the simple yet systematic arrangement in which West Virginia's raw materials were shown—typifying their vastness, variety and limitless opportunities for development.

Of compelling interest were the facts displayed that

WEST VIRGINIA HAS

10,000,000 Acres Agricultural Lands.

5,000,000 Acres Grazing Lands.

5,000,000 Acres Finest Fruit Lands.

1,500,000 Acres Virgin Forest.

25,000,000,000 Feet of Standing Timber.

6,000,000 Acres of Coal.

160,000,000,000 Tons of Unmined Coal, the Purest and Richest Coal in the World.

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Inexhaustible Quantities of Limestone.

Clays and Shales for Brick, Roofing, Tiling, and Stoneware in Boundless Quantities.

Glass Sands of Greatest Purity and Unlimited Quantity.

Thousands of Oil Wells, Producing Millions of Barrels of Oil.

Think of the many diversified manufacturing plants that could be established to take advantage of these raw materials; the inviting opportunities that are offered for farming, fruit-growing, dairying and stock raising.

These resources emphasize every claim which the Baltimore & Ohio has made regarding the future of West Virginia, and the field it offers to the investor, the capitalist, the manufacturer, the farmer and the home-seeker.

If you are interested in any of the rich resources of West Virginia, write our Industrial Department for further facts.

Baltimore & Ohio Railroad

W. W. Wood, Industrial Agent

Baltimore, Md.

The Value of Broad Distribution Facilities

Consider what the Clinchfield can offer you in this respect

Every manufacturer and business man, and even the farmer and fruit-grower, in these days, in the selection of a location for his undertaking, pays especial attention to shipping facilities, and seeks that point which will enable him to reach the country's largest markets in every direction.

He realizes that if his distribution is confined to one or two large markets, the condition of his business is but a reflection of the condition of these several markets.

But if his location is such that he can reach out into markets in every direction, he is not subject to the fluctuating conditions of one or two of them, as he always has others to which he can divert his products.

As a result, he is enabled to secure the best possible prices for his wares, and at the same time have a broad field for the expansion of his business.

In this connection, consider what the Clinchfield has to offer those who locate along its lines.

Through its connection with the Louisville & Nashville, and the Chesapeake & Ohio, the markets of the great Central West are reached.

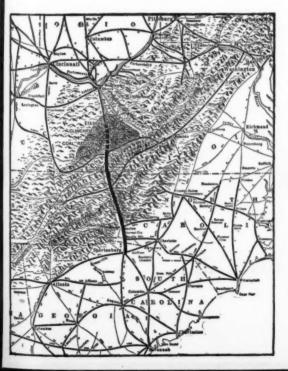
The Clinchfield crosses both the Norfolk & Western and the Southern Railways, which give outlets to the markets of the North on the one hand, and the South and Southwest on the other hand.

At its Southern end the Clinchfield connects with the Seaboard Air Line and the Southern Railway, and through them with the other principal railroads of the South, enabling it to thoroughly cover this growing section.

The Clinchfield has also direct connections with the important Southern seaports, and through them with the leading markets of the world.

Those located along the Clinchfield route who take advantage of the splendid openings available industrially, commercially and agriculturally, have therefore facilities for the broadest possible distribution.

And no section of the country contains a greater wealth of resources, combined with complete facilities for development.



Write for a copy of "Land of Opportunities," which illustrates and describes the Clinchfield territory.

Carolina, Clinchfield & Ohio Rwy.

"THE ROAD OF OPPORTUNITY"

J. J. Campion, V.-P. and Traffic Manager R. F. Brewer, Industrial Agent

Johnson City, Tenn.

The Opportunities for Live Stock Packing Plants in Mississippi

The live stock packing industry is one of the solid foundations upon which was built the commercial success of Chicago, Cincinnati, Kansas City, Omaha and Fort Worth.

Viewing the success of the plants already established in the State of Mississippi, it is fair to assume that in a region so blessed by nature and so admirably adapted in every respect for the raising and fattening of cattle and hogs there is a basis here for similar development of a great industry.

Mississippi is destined to become a great cattle and swine raising State. It is already moving rapidly in this direction. The facts bearing upon the success achieved in this highly profitable branch of farming make interesting reading.

Because of its climate, which permits out-of-door grazing all through the year; the remarkable productiveness of the land; its special adaptability for alfalfa, corn, oats, cottonseed meal and other fattening stock foods there are presented opportunities in Mississippi which are being rapidly taken up by the farmers.

Men of means who wish to make profitable investments should look into this situation. They will find in the Mississippi Delta most desirable locations for plants of the character described.

Nearness to the large markets of the country is one of the governing factors that should not be overlooked, and unsurpassed shipping facilities, together with an abundance of cheap labor, may be counted upon as fundamental reasons for investigating the opportunities here.

The Illinois Central Railroad will be glad to co-operate with those who desire to investigate these opportunities, of which there are such an abundance both agricultural and commercial, in Mississippi and Louisiana.

Information bearing upon these opportunities will be gladly furnished.

Illinois Central Railroad

Chicago, Ill.

J. C. Clair, Industrial and Immigration Commissioner Chicago, Ill.

The Relation of Key West to Some of the World's Best Markets

"Next to the Panama Canal in far-reaching importance to the country is the extension of the Florida East Coast Railway to Key West," was the statement made by one of the country's foremost statesman.

As this extension will shortly be completed, it is timely to call attention to the future importance of Key West as a port of commerce.

Run your eye down the Florida Peninsula and note how far it stretches out into the waters that wash the shores of the West Indies.

You will see Key West as the southernmost port of the United States, being sixty miles farther South than any other port in the country, and only ninety miles from Havana.

Consider then what it means to bring the United States and Cuba within five or six hours by steamer, and the influence this will exert upon travel and trade between the United States, the West India Islands, and Central and South America.

More than sixty years ago Commodore Maury, the "Pathfinder of the Seas," wrote that when an isthmian canal had been constructed, breaking down the barrier which from the beginning of time had separated the Atlantic and Pacific, the commerce of the world would center in the Gulf of Mexico.

When the Panama Canal had been definitely undertaken, the Florida East Coast Railway determined to extend its line to Key West, to be ready for the concentration of the world's commerce in the Gulf.

And it was primarily the commercially strategical relation of Key West to the enormous volume of trade in Cuba, Central and South America, and through the Panama Canal, that justified the large expense of extending the East Coast Railway to Key West.

Key West is nearer the Panama Canal than any other seaport in this country.

Importers and exporters of products of every character, manufacturers, jobbing houses, etc., will find it to their advantage to investigate the inviting opportunities for the establishment of their business or branch plants at Key West.

There is no question but that a large and expanding trade must in the near future begin to pass through this port, so that it is most timely to study and investigate the situation now.

Florida East Coast Railway

J. E. INGRAHAM, Vice-President ST. AUGUSTINE, FLA.

Abrasive Materials.

Abrasive Material Co., Philadelphia, Pa.,
Carborundum Co., Niagara Falls, N. X.,
Norton Co., Worester, Mass.
Vitrified Wheel Co., Westfield, Mass.

Accountants.

Baitimore Audit Co., Baitimore, Md.

Crusseile Audit Co., Arlanta, Ga.

Interstate Audit Co., Washington, D. C.

Neville, Chas., Savannah, Ga.

Adding Machines.

Adder Machine Co., Wilkes-Barre, Pa. Burroughs Adding Machine Co., Detroit, Mich.

Agents. (Manufacturers'.) Allen, Herbert F. L., Washington, D. C.

Agricultural Implements. Appomuttox from Works, Petersburg, Va. Myers & Bro., F. E., Ashland, O.

Myers & Bro., F. E., Ashland, O.

Air Compressors. (Statlonary and Portable.)
Allen, Herbert F. L., Washington, D. C.
American Air Compressor Was, New York, N. Y.
American Compressor & Pump Co., Battmore, Md.
Blatsdell Machinery Co., Bradford, Fn.
Chicago Denumrite Teach Chelaggo, H.
Lingersoll-Rand Co., New York, N. Y.
Ingersoll-Rand Co., New York, N. Y.
Union Steam Pump Co., Battle Creek, Mich.

Air Motors.

Dake Engine Co., Grand Haven, Mich.
Ingersoll-Rand Co., New York, N. Y.

Aluminum Products. (Bars, Sheets, Tubes, Company of America, Pittsburg, Pa.

Alundum Wheels. Norton Company, Worcester, Mass,

Notion Company, Worcester, Mass.

Anti-Friction Metals.

Balley-Lebby Co., Charleston, S. C.

Dodge Manufacturing Co., Mishawaka, Ind.

Gilbert & Sans Brass Fries For, Co., A., St. Louis, Mo.

Phosphor-frome Surelting Co., Philin, Fe.

Virginia Rathway Supply Co., Norfolk, Va.

Virginia Railway Supply Co., Rockota,
Architects.
Anderson, Cain & Shepherd, Richmond, V.
Cothran & Cothran, ureenwood, S. C.
Koeth, L. A. H., Whinington, N.
Koeth, L. A. H., Whinington, N.
Koeth, L. A. H., Whinington, N.
McLaughill & Johnson, Lynchburg, Va.
Milburn, Helster & Co., Washington, D.
Northup, Willard C., Winston-Salem, S.
Fettit & Cave, Danville, Va.
Shrand & Lafrige, Columbia, S. C.
Sirrine, J. E., Greenville, S. C.

Architects' Supplies. euffel & Esser, Holoken, N. J. arrett Co., L. S., Athol, Mass. eber & Co., F., Philadelphia, Pa.

Architectural iron and Sheet Metal Work. Bolles Iron & Wire Works, J. E., Detroit, Mich. Chesspeake Iron Works, Baltimore, Md. Bebes Mohes Bridge & Iron Co., Pes Mohes, Ia. Schreiber & Sons Co., The L., Cincinnati, O., Jaged Architectural Iron Works, Louisville, Ky.

Art Glass. Rinswanger & Co., Memphis, Tenn.

Art Glass and Prisms. (Set in Zinc and Spiess Art Gluss Co., G. A., St. Louis, Mo.

Asbestos.
rodina Portland Cement Co., Charleston, S. O.
has-Manville Co., H. W., New York, N. Y.
uthern Pipe Covering Co., Inc., Richmond, Va.

Asphalt.
Armitage Mfg., Co., Richmond, Va.
Armitage Mfg., Co., Richmond, Va.
Barber Asphalt Paving Co., Philadelphia, Pa.
Gulf Redning Co., Pittsburg, Pa.
Texas Co., The, New York, N. Y.
Asphalt Roofing and Siding. (Bird Sand and
Chipped State Surfaced.)
Bermingham & Seaman Co., Chicago, Ill.

Automatic Buckets.

Automobiles. (Pleasure.)
Interstate Automobile Co., Muncle, Ind.
Automobiles. (Motor Trucka.)
Relly Motor Truck Co., Springfield, O.
Schacht Motor Car Co., Cincinnati, O.

Axles. [See Car Wheels, Axles and Trucks.] Babbitt Metal. [See Anti-Friction Metal.]

Badges. (Hat and Breast, Electric and Steam Road, Police and Fire Dept.) American Rallway Supply Co., New York, N. Y.

Bakers' Machinery. rnn Superior Co., The, Cinchanti, O.

Bankers and Brokers.

Bankers and Brokers.

Belaware Trust Co., Rattimore, Md.

Belaware Trust Co., Wilmington, Del.

Electric Bond & Share Co., New York.

Glenn, W. S., Spartanburg, S. C.

Guaranty State Bank & Trust Co., Dallas, Tex.

Halsey & Co., N. W., New York, N. Y.

Lisman & Co., F. J., New York, N. Y.

Mercantile Trust & Deposit Co., Baltimore, Md.

New First National Bank, Columbus, O.

Nuveen & Co., John, Chicago, Hl.

Savannah Bank & Trust Co., Savannah, Ga.

Short & Son, John C., New York, N. Y.

Southern States Developm't Co., New York, N. Y.

Banks. Bankers and Brokers. Baltimore Trust Co., Baltim

Banks.
First National Bank, Baltimore, Md.
First National Bank, Of Key West, Key West, Fla.
First National Bank, Richmond, Va.
Guaranty State Bank & Trust Co., Dallas, Tex.
Merchants National Bank, Baltimore, Md.
New First National Bank, Columbus, O.
National Exchange Bank, Baltimore, Md.
Bavannah Bank & Trust Co., Savanuah, Ga.

Bank and Office Railings and Grilles.(1 Bank and Office Railings and Grilles.(190n.)
Bolles Iron & Wire Works, J. E., Detroit, Mich.
Buckeye Wire & Iron Works Co., Columbus, O.
Chattanooga Iron & Wire Wks., Chat'n'ga, Tenn.
Chesapeake Iron Works, Baltimore, Md.
Cincinnati Míg. Co., Cincinnati, O.
Dow Wire Works, Louisville, Ky,
Dufur & Co., Baltimore, Md.
Dufur, Baggott & Co., Baltimore, Md.
Jones & Co., L. E., Baltimore, Md.
Meyers Mfg. Co., F. J., Hamilton, O.
Ohio Elevator & Machine Co., The, Columbus, O.

Bank Fixtures. Ruse & Thompson, Baltimore, Md.

Bar Iron. (Refined and Galvanized.) titnegle Steel Co., Pittsburg, Pa. icetown Plate Washer Co., Philadelphia, Pa.

Bars, Wire, Wire Fabric, etc. (Steel for Concrete-Steel Construction.) crete-Steel Construction.)
merlean Steel & Wire Co., Chicago, Ill.
meinnati Iron & Steel Co., Cincinnati, O.
merete-Steel Co., The, New York, N. Y.

Concrete Steel Engineering Co., New York, N. Y. Franklin Steel Co., Franklin, Pa. Hoffman & Co., R. C., Baltimore, Md. Jones & Laughlin Steel Co., Pittsburg, Pa. Wight & Co., W. N., New York, N. Y.

Bearings. (Ball.)
Bretz Co., J. S., New York, T. Y.
Hyatt Roller Bearing Co., Newark, N. J.
Standard Roller Bearing Co., Philadelphia, Pa.

Bearings. (Brass Journal.)
Bert & Sons Brass Fdry. Co., A., St. Louis, Mo.

Bearings. (Locomotive and Car.) eystone Bronze Co., Pittsburgh, Pa.

Bearings. (Oilless.) North Amer. Mctaline Co., Long Island City, N. Y.

Bearings. (Roller.) Hyatt Roller Bearing Co., Newark, N. J. Standard Roller Bearing Co., Philadelphia, Pa.

Bells. (Call.) Holtser-Cabot Electric Co., Boston, Mass.

Bells and Gongs, attomat Tube Co., Pittsburg, Pa. Festern Electric Co., New York, N. Y.

Western Electric Co., New York, N. Y.

Belting, (Leather, Canvas, Rubber.)

American Supply Co., Providence, R. I.

Bailey-Lebby Co., Charleston, S. C.

Baithmore Belting Co., Baltimore, Md.

Cameron & Barkley Co., Charleston, S. O.

Chesapeake Belting Co., Baltimore, Md.

Damond Rubber Co., Akron, O.

Druid Onk Belting Co., Bultmore, Md.

Bandy Belting Co., Bultmore, Md.

Ladew, Estate Edward, Gien Cove, N. Y.

N. J. Car Spring & Rubber Co., Persey City, N. J.

Rossendale-Reddawny B. & H. Co., Newark, N. J.

Ward-Becke Co., Washington, D. C.

Williams & Sons, I. B., Dover, N. H.

Belting, (Chalp.)

Williams & Sons, I. B., Dover, N. H.

Beiting. (Clain.)
Bartlett & Snow Co., C. O., Cleveland, O.
Culdwell & Sons Co., H. W., Chicago, Hl.
Jeffrey Mfg. Co., Columbus, O.,
Link Beit Co., Nicetown (Fulladelphia), Pa.
Morse Chain Co., Ithaca, N. Y.

Belt Conveyors.

Jeffrey Mfg. Co., Columbus, O.

Robins Conveying Belt Co., New York, N. Y.

Belt Dressing.
Dlamond Rubber Co., Akron, O.
Gandy Belting Co., Baltimore Md.
Ladew, Estate Edward, Glen Cove, N. Y.

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escent Belt Fastener Co., New York, N. Y. Belt Lacing. [See Belting, Leather, Canvas, Rubber, and Supplies.]

Bicarbonate Soda. (Sup Stain Lumber Dip.) nurch & Dwight Co., New York, N. Y.

Blackboards. (Slate.) East Bangor Con. Slate Co., The, East Bangor, Pa. Hower, J. K., Slatington, Pa. Johnson, E. J., New York, N. X.

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Blowers and Exhaust Fans.

American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Clark Co., Geo. F., Windsor Locks, Conn.
De Laval Steam Turbine Co., Trenton, N. J.
Garden City Fan Co., Chicago, Ill.
General Electric Co., Sciencetady, N. Y.
Green Fuel Economizer Co., Matteawan, N. Y.
Raymond Bros. Impact Pulv. Co., Chicago, Ill.
Savannah Blower E. Metal Mig. Co., Atlanta, Ga.
Sturtevant Co., B. F., Hyde Park, Mass.

Blueprint Apparatus. Keuffel & Esser, Hoboken, N. J.

Bileprint Apparatus,
Keuffel & Esser, Hoboken, N. J.

Boilers.
Abendroth & Root Mfg. Co., Newburgh, N. Y.
Ames Iron Works, Oswego, N. Y.
Babcock & Wilcox Co., New York, N. Y.
Babcock & Wilcox Co., New York, N. Y.
Brownell Co., Dayton, O.
Cameron & Barkiey Co., Charleston, S. C.
Cassey-Heiges Co., Chattanooga, Tenn.
Chattanooga Boiler & Tank Co., Chat'nga, Tenn.
Chattanooga Boiler & Tank Co., Chat'nga,
Coper Co., C. & G., Mt. Vernon, O.
Gem City Boiler Co., Dayton, O.
Gem City Boiler Co., Dayton, O.
Gem City Boiler Co., Columbia, S. C.
Hartley Boiler Works, Montgomery, Ala.
Heine Safety Boiler Co., St. Louis, Mo.
Keeler Co., E., Williamsport, Pa.
Lombard Iron Works, Montgomery, Ala.
Heine Safety Boiler Co., St. Louis, Mo.
Keeler Co., E., Williamsport, Pa.
Lombard Iron Works, Augusta, Ga.
Mecklenburg Iron Works, Churtanooga, Tenn.
Lombard Iron Works Co., Burdington, Ia.
Petroleum Iron Works Co., Burdon, Pa.
Price Machinery Co., S. M., Norfolk, Va.
Schofield & Sons Co., J. S., Macon, Pa.
Phoenix Iron Works Co., Slamon, Pa.
Phoenix Iron Works Co., Silmon, Pa.
Price Machinery Co., S. M., Norfolk, Va.
Schofield & Sons Co., J. S., Macon, Ga.
Smith-Courtney Co., Richmond, Va.
Southern Engline & Boiler Works, Jackson, Tenn.
Union Iron Works Co., Selma, Ala.
Valk & Mardock Iron Works, Churtsston, S. C.
Vogt Machine Co., Henry, Louisville, Ky.
Walsia & Weidner Boiler Co., Chitsburg, Pa.
Harbison-Walker Refractories Co., Pittsburg, Pa.

. Boller Setting. Harbison-Walker Refractories Co., Pittsburg, Pa. Boller Tubes. [See Tubes, Boller.]

Bolts, Nuts, Rivets, Studs and Washers, Lebanon Valley Iron & Steel Co., Lebanon, Pa. Milton Mfg. Co., Milton, Pa., Nicetown Plate Washer Co., Philadelphia, Pa. Republic Iron & Steel Co., Youngstown, O. Russell, Burdssll & Ward Bolt & Nut Co., Port Chester, N. Y.

Bonds. (Surety, etc.) Fidelity & Deposit Co., Baltimore, Md.

Boring. (Cylinder.) rickland Machine Co., Bichmond, Va.

Bottling Outfits. Vilter Mfg. Co., Milwaukee, Wis. Box Shooks. Naylor & Co., S. E., Gulfport, Miss.

Brass Goods.
Builey-Lebby Co., Charleston, S. C.
Buckeye Iron & Brass Works, Dayton, O.
Powell Co., Wm., Cincinnati, O.

Brazings. (Cast Iron.) ichmond Machine Works, Inc., Richmond, Va. trickland Machine Co., Richmond, Va.

Brass Railings and Grilles, etc. McKenna Bros. Brass Co., Pittsburgh, Pa.

Brewers' Machinery. ilter Mfg. Co., Milwaukee, Wis.

Brick. (Building.) Am. Enameled Brick & Tile Co., New York, N. Y. Brookhaven Pressed Brick & Mfg. Co., Brook-haven, Miss. Carolina Portland Cement Co., Charleston, S. C. Fiske & Co., Inc., New York, N. Y. Hood, B. Mifflin, Atlanta, Ga. Hydraulic Press Brick Co., St. Louis, Mo. Oconce Brick & Tile Co., Milledgerille, Ga. Pittsburgh, Buffalo Co., Pittsburgh, Pa. Sibiey-Menge Brick & Coal Co., Birmingham, Ala.

Brick. (Blast Furnace, Coke Oven.) Ashland Fire Brick Co., Ashland, Ky. Hood, B. Midlin, Atlanta, Ga.

Amer. Enam. Brick & Tile Co., New York, N. Y.

Brick. (Fire Clay.) Brick. (Fire Clay.)
Ashland Fire Brick Co., Ashland, Ky.
Brookinder Pressed Brick & Mfg. Co., Brookhaven, Miss.
Fiske & Co., Inc., New York, N. Y.
Harbison-Walker Refractories Co., Pittsburg, Pa.
Killian Fire Brick Works, Killian S. C.
Louisville Fire Brick Works, Highland Park, Ky.
Pomona Terra-Cotta Co., Pomona, N. C.
Stevens' Sons Co., II., Macon, Ga.
Taylor Sons Co., Class, Cincinnati, O.
Union Mining Co., Mt. Savage, Md.

Brick. (Magnesia.) arbison-Walker Refractories Co., Pittsburg, Pa.

Brick. (Paving.) rlyle Paving Brick Co., Portsmouth, O. peland-Inglis Shale Brick Co., Birmingham, Ala. Brick. (Silien.) Harbison-Walker Refractories Co., Pittsburg, Pa.

Brick and Clayworking Machinery and Supplies. Supplies.
Carnell, George, Philadelphia, Pa.
Ferndoltz Brick Machinery Co., St. Louis, Mo.
Freese & Co., E. M., Gallon, O.
Gibbes Machinery Co., Columbia, S. C.
Scott-Madden Iron Works, Keokuk, Iowa.
Steele & Sons, J. C., Statesville, N. O.
Taplin-Rice-Clerkin Co., Akron, O.
Brick Fireplaces. [See Fireplaces, Artistic
Brick)

Brick Machinery. (Sand Lime.) [See Sand-Lime Brick Machinery.]

Brickwork. (Artistic.) Fiske & Co., Inc., New York, N. Y.

Bridges. (Concrete.) mcrete Steel Engineering Co., New York, N. Y. mnoke Bridge Co., Rounoke, Va.

Bridges. (Rolling Lift.) Scherzer Rolling Lift Bridge Co., Chicago, Ill.

Bridges. merican Bridge Co. of New York, New York, N. Y. altimore Bridge Co., Baltimore, Md. Briugeas.
American Bridge Co. of New York, New York, St. A.
Baltimore Bridge Co., Baltimore, Md.,
Baltimore Bridge Co., Baltimore, Md.,
Belmout Iron Works, Inc., Philadelphia, Pa.,
Chicago Bridge & Iron Wks., Chicago, Ill.,
Des Moines Bridge & Iron Co., Des Moines, Ia.,
Farris Bridge Co., Plitsburg, Pa.,
Missourl Val. Bridge & Iron Co., Leavenw'th, Kan.,
Riter-Conley Mfg. Co., Plitsburg, Pa.,
Roanoke Bridge Co., Roanoke, V.,
Vincennes Bridge Co., Vincennes, Ind.,
Virginia Bridge & Iron Co., Roanoke, Va.,
York Bridge Co., York, Pa.,
York Bridge Co., York, Pa.

Bridge and Structural Iron Paints. Carolina Portland Cement Co., Charleston, S. C. Chattaneoga, Paint Co., Chattaneoga, Tean. Detroit Graphite Co., Detroit, Mich. Dixon Crucible Co., Joseph, Jersey City, N. J. Standard Paint Co., New York, N. X.

Brimstone. nion Sulphur Co., New York, N. Y.

Briquetting Machinery. (Coal, Lignite, Ore.) evillers, Bobert, Brooklyn, N. Y.

Buckets. (Excuvators.)
Browning Mg. Co., Mansdield, O.
Hayward Co., New York, N. Y.
Monighan Mch. Co., Chicago, Ill.
Owen Bucket Co., Cleveland, O.
Williams Co., The G. H., Cleveland, O.

Williams Co., The G. H., Cleveland, O. Buckets. (Ore, etc.)
Brown Hoisting Mehy. Co., Cleveland, O. Browning Mfg. Co., Mansdeld, O. Caldwell & Son Co., H. W., Chlengo, Ill. Bodge Manufacturing Co., Mishawaka, Ind. Hayward Co., New York, N. X. Link-Beit Co., Nicetown (Philadelphia), Pa. Owen Bucket Co., Cleveland, O. Smith Co., T. L., Athanta, Ga.
Williams Co., The G. H., Cleveland, O.

Buhr Stones. arr Co., B. F., Baltimore, Md.

Builders and Contractors. Falls City Construction Co., Louisville, Ky. Farris Bridge Co., Pittsburg, Pa. Ferro Concrete Construction Co., Cincinnati, Ferro Concrete Construction Co., Cincinnati, O. Selden-Breck Construction Co., St. Louis, Mo. White & Co., J. G., New York, N. Y.

Buildings. (Financed and Erected.) Falls City Construction Co., Louisville, Ky. Gulf Coast Construction Co., Houston, Tex.

Building Supplies.

Armitage Mfg. Co., Richmond, Va.
Carolina Portland Cement Co., Charleston, S. C.
Chicago House Wrecking Co., Chicago, Hl.
Southeastern Lime & Cement Co., Charleston, S. C.
Southern Building Material Co., Norfolk, Va.

Burlap-Inserted Roofing and Siding. (Flex-ible Cement.) Bermingham & Seaman Co., Chicago, Ill.

Burners. (Oil.) [See Fuel Oil Equipments.] Bushings. (Oilless, for Loose Pulleys.) North Amer. Metaline Co., Long Island City, N. Y.

North Amer. Metaine Co., Long Issuau City, N. z. Cables.
American Steel & Wire Co., Chicago, Ill.
Butchrick & Bascom Rope Co., St. Louis, Mo.
Roebling's Sons Co., John A., Trenton, N. J.
Williamsport Wire Rope Co., Williamsport, Pa.
Cableways. (Overhead Suspension.)
Broderick & Bascom Rope Co., St. Louis, Me.
Flory Mfg. Co., S. Bangor, Pa.
Lidgerwood Mfg. Co., New York, N. Y.
Mead-Mortison Mfg. Co., Cambridgeport, Mass.
Roebling's Sons Co., John A., Trenton, N. J.

Can and Box Making Machinery. (Tin.) Bliss Co., E. W., Brooklyn, N. Y.

New Orleans Rfg. & Metal Wks., New Orleans, La. Southern Can Co., Baltimore, Md.

Canning Machinery and Supplies. Canners & Packers' Supply Co., Baltimore, Md. Robins & Co., A. K., Baltimore, Md. Sinclair-Scott Co., Baltimore, Md. Sprague Canning Machinery Co., Chicago, Ill Carborundum Paper and Cloth. arborundum Co., Niagara Falis, N. Y.

Card Clothing. merican Supply Co., Providence, R. I.

American Supply Co., Providence, R. I.

Cars. (Dump, Industrial Logging and Mine,)

ustin Mig. Co., Chicago, III.

baldwin Equipment & Supply Co., Chicago, III.

baldwin Equipment & Supply Co., Chicago, III.

baldwin Equipment & Supply Co., Atlanta, Ga.,

tourse Fdry, & Mig. Co., Columbus, O.

corgin Car & Locomotive Co., Atlanta, Ga.,

tunt Co., C. W., West New Brighton, N. Y.

lates Co., The, Cincinnati, O.,

liver Mig. Co., Win, J., Knoxville, Tenn.

aleigh from Works Co., Raleigh, N. C.

mith Co., T. L., Atlanta, Ga.

nion from Works, Selma, Ala.

Cars. (Passenger and Freight.) [See Rullroad

Car Couplers and Knowles. Safety Car H't'g & L'ght'g Vo., New York, N. Y.

Car Lighting and Heating. Sufety Car H't'g & L'ght'g Co., New York, N. Y.

Car Steps. (Extension.) lake Car Step Works, Charlotte, N. C.

Car Wheels, Axles and Trucks, Carnegie Steel Co., Pittsburg, Pa., Oilver Mfg. Co., Wm. J., Knoxville, Tenn. Union Iron Works, Selma, Ala.

Casters. Clark Co., Geo. P., Windsor Locks, Cons.

Castings, (Aluminum.) luminum Company of America, Pittsburg, Pa. orwalk Brass Co., Norwalk, Conn.

Norwalk Brass Co., Norwalk, Conn.

Castings. (Brass and Bronze.)

Gilbert & Sons Brass Fdry. Co., A., St. Louis, Mo.,

Keystone Bronze Co., Fittsburgh, Pa.,

Norwalk Crass Co., Norwalk, Com.,

Philippinor-Bronze Smelting Co., Philis., Pa.,

Kichimond Machine Works, inc., Richmond, Va.,

Fringh & Brang Co., Petershurz, Va.,

Fringh Electric Co., Cinchnatl, Ohio.

Triumph Electric Co., Cinchmati, Ohio.

Castings, (Iron, Gray, etc.)

Columbian Iron Works, Chattanooga, Tenn.

Glibbes Muchinery Co., Columbia, S. C.

Georgia Car & Locomotive Co., Atlanta, Ga.,

Giamorgan Pipe & Foundry Co., Lynchburg, Va.

McWane Pipe Works, Lyncbburg, Va.

Poole Engineering & Macline Co., Baitimore, Md.

Rosnock Iron Works, Inc., Rosnocke, Va.

Robins Conveying Belt Co., New York, N. T.

Ross-Mechan Foundry Co., Clustranooga, Tenn.

Stratton & Bragg Co., Petersburg, Va.

L. S. Cast Iron Pipe & Fdy. Co., New York, N. T.

U. S. Cast Iron Pipe & Fdy. Co., New York, N. T.

Westbrook Elevator Co., Danville, Va.

Castings. (Mallenble Iron and Steel.)

Castings. (Mallemble Iron and Steel.) Issouri Mallemble Iron Co., East St. Louis, IR.

Cellings. (Metal.)
Custianoga Rig. & Fdry. Co., Chatianoga, Tenn.
Edwards Manufacturing Co., Chichmati. O.,
Harry Steel Co., O. K., St. Louis, Mo.,
Keighley Metal Cell. & Mig. Co., S. Pittsburgh, Pa.
Milwaukee Corrugating Co., Milwaukee, Wis.

Milwaukee Corrugating Co., Milwaukee, Wis.
Cement C., Cement Co., Easton, Pa.
Alpha Iverland Gement Co., Easton, Pa.
Alpha Iverland Gement Co., Charleston, 8. G.
Chrolian Portland Cement Co., Charleston, 8. G.
Chinchfield Portland Cement Co., Charleston, 8. G.
Chinchfield Portland Cement Co., Finance, Tens.
Hartrant Cement Co., Win. G., Philadelpila, Pa.
Ironton Portland Cement Co., Ironton, O.
Kirkpatrick Sand & Ceme. Co., Birminghand, Ala,
Kosmos Portland Cement Co., Loniaville, Ky.
Lehigh Portland Cement Co., Baltimore, Md.
Southeasteru Lime & Cement Co., Charleston, 8. G.
Southern States Portland Cement Co., Rockmart, Ga.
Standard Portland Cement Co., Rockmart, Ga.
Standard Portland Cement Co., Baltimore, Md.
Tidewater Portland Cement Co., Baltimore, Md.

Cement. (Liquids.) Gildden Varnish Co., Cleveland, O.

Cement Machinery.
Abing Engineering Co., J. B., New York, N. Y.
Power & Mining Machinery Co., Cudahy, Wis.
Ruymond Bros. Impact Pulv. Co., Chicago, Ill.

Chain Blocks.
Ford Chain Block & Mfg. Co., Philadelphia, Pa.

Chains. (Dredge, Quarry, Steam Shovel.) Weinier Chain & Iron Co., Lebanon, Pa. Channelers. Ingersoll-Rand Co., New York, N. Y.

Checks, Metal. (Factory, Time and Mer-American Railway Supply Co., New York, N. Y.

Chemical and Drug Machinery.

Chemists.
Burn, Harry, Birmingham, Ala.
bavis, Geo. C., Philadelphila, Pa.
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Specialty Eng. Co., Houston, Tex.

Tucker & Laxton, Charlotte, N. C.

ICE AND REFRIGERATING. Hague, John, St. Louis, Mo. Tait-Nordmeyer Eng. Co., St. Louis, Mo.

ILLUMINATING. Holophane Co., Newark, Ohio.

LANDSCAPE.
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Gardner & Howe, Memphis, Tenn.
Layman, E. F., Chedmand, O.

WATER-WORKS.
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Fairhanka, Morse & Co., Chicago, Ill.

Mietz, A., New York, N. Y.

Otto Gas Engine Works, Philadelphia, Pa.
Standard Gas Power Co., Atlanta, Ga.

Westinghouse Machine Co., The, Pittsburg, Pa.

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American Engine Co., Pound Brook, N. J.

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Ames Iron Works, Oswego, N. Y.

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Mecklenburg Iron Works, Baldwinsville, N. Y.

Murray Iron Works, Co., Meadylle, Pa.

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Startevant Co., B. F., Hyde Park, Mass.

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Vitter Mfg. Co., Milwaukee, Wie.

Westinghouse Machine Co., Pittsburg, Pa. Engines. (Steam.)

Engines. (Truck and Aeroplane.) Black & Decker Mfg. Co., Baltimore,

Envelopes. oung & Selden Co., Baltimore, Md.

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Virginia Bridge & Fon Co., Rosmoke, Va.
Varian & Weidner Boiler Co., Chattanooga, Tenn.

Tanks. (Wood.) Baltimore Cooperage Co., Baltimore, Md. Unidwell Co., Inc., W. E., Louisville, Ky. Davis & Son, G. M., Palatka, Fla. Sydnor Pump & Well Co., Ilichmond, Va.

Tapes. (Measuring.) Keuffel & Esser, Hoboken, N. J. Lufkin Rule Co., Saginaw, Mich. Starrett Co., L. S., Athol, Mass.

Telephones. (Supplies, Equipment.) Doubleday-Hill Electric Co., Pittsburg, F Piedmont Electric Co., Asheville, N. C. Western Electric Co., New York, N. Y.

Telephone Cable.

Intern'l Creo. & Constr. Co., Galveston, Tex. Western Electric Co., New York, N. Y.

Telephone Poles. [See Crossties.] Western Electric Co., New York, N. Y.

Terra-cotta. Terra-cotta.
Atlanta Terra-Cotta Co., East Point, Ga.
Bibles Sewer Pipe Co., Macon, Ga.
Maryland Terra-Cotta Co., Bultimore, Md.
Pomona Terra-Cotta Co., Pomona, N. C.
Southern Building Material Co., Norfolk, Va.
Stevens' Sons Co., H., Macon, Ga.

Threshers.
ardwell Machine Co., Richmond, Va.
Threshing Mch. Co., J. I., Bacine, Wis.

Tle Plates. (Railways.) irginia Railway Supply Co., , Norfolk, Va.

Tile. (Drain, Floor, etc.) Amer. Enam. Brick & Tile Co., New York, N. Y. Bibbs Sewer Pipe Co., Macon, Ga. Oconee Brick & Tile Co., Milledgeville, Ga.

Tile. (Mosaic.) gostin & Angelini Bros., Montgomery, Ala.

Tile. (Roofing.) National Roofing Tile Co., Lima, O. Tin and Terne Plates.

American Sheet & Tin Plate Co., Pittsburg, Pa. Merchant & Evans Co., Philadelphia, Pa.

Tobacco Machinery. Buckeye Iron & Brass Works, Dayton, O. Cardwell Machine Co., Richmond, Va.

Tool Steels. Steel Sales Co., Wm., St. Louis, Mo. Tools. (Machinists'.)

Manning, Maxwell & Moore, Inc., New York, N. Y. Morse Twist Drill & Mch. Co., New Bedford, Mass. Tools. (Mechanical.)

Starrett Co., L. S., Athol, Mass.

Starrett Co., L. S., ALBOJ, MARCH.
Tools. (Pneumatic.)
American Compressor & Pump Co., Baltimore, Md.
Chicago Pneumatic Tool Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.

Torches. Mfg. Supply Co., P., Allegheny, Pa.

(Steel and Wood.) Towers. Towers. (Steel and Wood.)
Baltimore Cooperage Co., Baltimore, Md.
Caldwell & Co., Inc., Wm. E., Louisville, Ky.
Cinttancoga Boiler & Tank Co., Chat'n'ga, Tenn.
Chicago Bridge & Iron Wka., Chicago, Ill.
Cole Mfg. Co., R. D., Newnan, Ga.
Des Moines Bridge & Iron Co., Des Moines, Ia.

Traction Engines. ase Threshing Mach. Co., J. I., Bacine, Wis.

Tramway, (Overhead.) orthern Engineering Works, Detroit, Mich. cidel, J. G., Reading, Pa.

Tramway. (Wire Rope.) Broderick & Baseom Rope Co., &t. Louis, Mo. Caldwell & Sons Co., H. W., Chicago, Ill. Link-Belt Co., Nicetown (Philadelphia), Pa.

Transformers.

rocker-Wheeler Co., Ampere, N. J.

rolloloney Electric Co., St. Louis, Moriumph Electric Co., Cincinnati, C.

Transmission Line Supplies. (Electric.) lectrical Engineers' Equip. Co., Chicago, 111.

Trench Excavator.

American Steel Dredge Co., Ft. Wayne, Ind.

Fairbanks Steam Shovel Co., Marion, O.

Monighan Machine Co., Chicago, Ill.

Trucks. (Motor.) Kelly Motor Truck Co., Springfield, O. Schacht Motor Car Co., Cincinnati, Ohio,

Trucks.(Platform, Freight, Mill, Factory, etc.) Chase Fdry. & Mfg. Co., Columbus, G. Clark Co., Geo, P., Windsor Locks, Cons. Howe Scale Co., New York, N. Y. Rome Scale & Mfg. Co., Rome, Gs.

Trucks. (Storage Battery Auto.) 'estinghouse Machine Co., Pittsburg, Pa.

Trucks. (Wood and Steel for Portable Ma Empire Manufacturing Co., Quincy, Ill.

Trust Companies, (See Bankers and Brokers.) Tube Well Strainers. Cook Well Co., St. Louis, Mo.

Tubes. (Boiler.)
Allegheny Steel Co., Pittsburgh, Pa.
Clincinnai Iron & Steel Co., Cincinnati, O.
National Tube Co., Pittsburg, Pa.

Tubing.
Field & Co., Inc., Philadelphia, Pa.
La Belle Iron Works, Steubenville, O.
National Tube Co., Pittsburg, Pa.
Youngstown Sheet & Tube Co., The, Youngstown, O. Turbines. (Hydraulic.)

Turbines. (Hydraulic.)
Allis-Chalmers Co., Milwaukee, Wis.
Davis Foundry & Machine Works, Rome, Ga.
Dayton Globe iron Works Co., Dayton, O.
Leffel & Co., James, Springfield, O.
Poole Engineering & Mach. Co., Baltimore, Md.
Smith Co., S. Morgan, York, Pa.
Trump Mfg. Co., Springfield, O.

Turbines. (Steam.)

Allis Chalmers Co., Milwaukee, Wis.

De Laval Steam Turbine Co., Trenton, N. J.

Emerson Steam Pump Co., Alexandria, Va.

Ft. Wayne Electric Works, Ft. Wayne, Ind.

General Electric Co., Schenectady, N. Y.

Southwark Fdry. & Mch. Co., Philadelphia, Pa.

Terry Steam Turbine Co., New York, N. Y.

Western Electric Co., New York, N. Y.

Western Electric Co., New York, N. Y.

Westinghouse Machine Co., Pittsburg, Pa.

Turbine Condensers. heeler Condenser & Eng. Co., New York, N. Y.

Turntables. Bultimore Bridge Co., Baltimore, Md. Virginia Bridge & Iron Co., Boanoke, Vi

Turpentine. Turpentine & Refin'g Co., Savannah, Ga.

Tuyeres. (Copper and Bronze.) cystone Bronze Co., Pittsburgh, Pa.

Twine.
American Manufacturing Co., New York, N. Y.
Columbian Rope Co., Adburn, N. Y.
Plymouth Cordage Co., North Plymouth, Mass.
Turner Co., J. Spencer, New York, N. Y.
Whitlock Cordage Co., New York, N. Y.

Twine Machinery.

Twisting Machinery. Haskell-Dawes Machine Co., Boston, Mass. Unions. Dart Manufacturing Co., E. M., Providence, R. I.

Vecuum Cleaning Apparatus. Blaisdell Machinery Co., Bradford, Pa.

Varies.

Bourhon Copper & Brass Wks. Co., Cincinnati, O. Columbian Iron Works, Chattanoogs, Tean.

Frick Co., The, Waynesbore, Pr., General Fire Extinguisher Co., Providence, B. I. Glamorgan Pipe & Foundry Co., Lynchburg, Va. Jenkins Bros., New York, N. Y.

National Tube Co., Pittsburg, Pa.

Powell Co., Win., Clucinnati, O.

Wolf & Co., Fred W., Chicago, III.

York Mfg. Co., York, Pa.

Varnish. Berry Bros., Ltd., Detroit, Mich. Glidden Varnish Co., Cleveland, O.

Veneer Machines. tus, E. E., Petersburg, Va.

Ventilating Apparatus. (Engineers' and Con-tractors'.) American Blower Co., Detroit, Mich.
Buffalo Forge Co., Buffalo, N. Y.
Garden City Fan Co., Chicago, Ill.
Peck-Hammond Co., Chichnath, O.
Sturtevant Co., B. F., Hyde Park, Mass.

Ventilators.

Merchant & Evans Co., Philadelphia, Pa.

Wagons. (Dump.)
Eagle Wagon Works, Auburs, N. Y.
Troy Wagon Works Co., Troy, O.

Wall Plaster. King & Co., J. B., New York, N. Y.

Wall Plugs. (Galvanized.) Niagara Falla Metal Stamping Works, Niagara Falla, N. Y. Wicks & Co., Milton O., Glen Cove, N. Y. Wall Ties. Niagara Falls Metal Stamping Works, Niagara Falls, N. Y. Page Woven Wire Fence Co., Adrain, Mich.

Washers. (Ore and Phosphate.) Bailey-Lebby Co., Charleston, S. C. Cameron & Barkley Co., Charleston, S. C. McLannhan-Stone Mach. Co., Hollidaysburg, Pa.

Washers and Rivets [See Bolts, Nuts, Rivets, Stude and Washers.]

Water Filters. [See Filters, Water, for Domes-tic and Industrial Purposes.]

Water Meters. merican Valve & Meter Co., Cincinnati, O.

Waterproofing. (For Brick Work.)
Barrett Mfg. Co., Philadelphia, Pa.
Carolina Portland Cement Co., Charleston, S. C.
National Booling Co., Tonawanda, N. Y.
Waterproofing. (For Concrete.)

Barrett Mfg. Co., Philadelphia, Pa. National Roofing Co., Tonawanda, N. Y.

Waterproof Compound. (Liquid.)
arolins Portland Coment Co., Charleston, S. C.
ational Roofing Co., Tonawanda, N. Y.

National Roofing Co., Tonawanda, N. X.

Water-Softening Apparatus. (Purifying.)

American Water Softener Co., Philadelphia, Pa.

Dodge Manufacturing Co., Mishawaka, Ind.

Gem City Boiler Co., Dayton, O.,

Kennleott Co., Chicago Heights, Ill.

N. Y. Cont. Jewell Filtration Co., New York, N. X.

Roberts Filter Mfg. Co., Philadelphia, Pa.

Scaffe & Sons Co., Wm. B., Pittsburg, Pa.

Tucker & Laxton, Charlotte, N. C.

Water Supply Systems. (Town, Home, Rail-Rife Engine Co., New York, N. Y.

Water-Wheels. [See Turbines. (Hydraulic.)].

Water-Wheels. [See Turbines. (Hydraulic.)].
Water-Works Supplies and Appliances.
American Cast Iron Pipe Co., Birmingham, Ala.
American Pipe & Constr. Co., Philadelphia, Pa.,
Bibbs Sewer Pipe Co., Macon, Ga.
Blount, C. H., Atlanta, Ga.
Blount, C. H., Atlanta, Ga.
Bounton Copper & Brass Whs. Co., Cincinnati, O.
Coldwell-Wilcox Co., Newburgh, N. Y.
Columbian Iron Works, Chattanooga, Tenn.
Glamorgan Pipe & Foundry Co., Lynchburg, Va.
Keystone Pump & Well Eng. Co., Benver Falls, Pa.
Leadite Co., The, Philadelphia, Pa.,
McWane Pipe Works, Lynchburg, Va.
Pomona Terra-Cotta Co., Fonnona, N. O.
Stevene' Sons Co., H., Macon, Ga.
U. S. Cast Iron Pipe & Fdry, Co., New York, N. Y.
Weigher. (Recording Liquid.)

Weigher. (Recording Liquid.) forthington, Henry R., New York, N. Y.

Well Contractors. (Oll, Artesian, etc.)
Cook Well Co., The, St. Louis, Mo.
Highes Specialty Well Brill, Co., Charleston, S. C.
Sydnor Pump & Well Co., Itichmond, Va.
Well Tools and Supplies.

Cook Well Co., The, St. Louis, Mo. Keystone Pump & Well Eng. Co., Beaver Falls, Pa. Williams Bros., Ithacs, N. Y.

Wheels and Axles. Empire Manufacturing Co., Quincy, III. Oliver Mfg. Co., W. J., Knozviile, Tenn.

Wheelbarrows and Trucks.
racuse Chilled Plow Co., Syracuse, N. Y.

Wheels. (Eteel and Steel Tired.) Carnegie Steel Co., Pittsburg, Pa. Empire Manufacturing Co., Quincy, III.

Window Frames and Sashes. (Fireproof.) Detroit Steel Products Co., Detroit, Mich. United States Metal Products Co., New York, N. Y. Volgtmann & Co., Chicago, III.

Window Guards. (Wire.) [See Wire Goods.] Windmills. Baltimore Cooperage Co., Baltimore, Md. Caldwell Co., Inc., W. E., Louisville, Ky.

Wire insulating.
General Electric Co., Schenectady, N. Y.

Wire. (Barbed Wire, etc.) merican Steel & Wire Co., Chicago, Ill. oebling's Sons Co., J. A., Trenton, N. J. oungstown Sheet & Tube Co., Youngston

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merican Steel & Wire Co., Chicago, Ill.
aldwell & Sons Co., The H. W., Chicago,
lamond Wire Freducts Co., Columbus, O.,
eyers Mfg. Co., Fred J., Hamilton, O.,
eyers Wire Cloth Co., Trenton, N. J.
light & Co., W. N., New York, N. Y.

Wight & Co., W. N., New York, N. Y.

Wire Goods.

Bolles Iron & Wire Works, J. E., Detroit, Mich. Buckeye Wire & Iron Works Co., Columbus, O. Cincinnati Mg. Co., Cincinnati Mg. Co., Cincinnati, O. Diamond Wire Products Co., Columbus, O. Dow Wire Works Co., Louisville, N., Co., Duff, Durur, Bagoti & Co., Baltimore, Md., Jones & Co., Is. E., Baltimore, Md., Jones & Co., Is. E., Baltimore, Md., Meyers Mg. Co., The Fred J., Hamilton, O. New Jersey Wire Cloth Co., Trenton, N. J.

Wire Netting.

American Steel & Wire Co., Chicago, Ill.

New Jersey Wire Cloth Co., Trenton, N. J.

Wire Rope.

American Steel & Wire Co., Chicago, III.

Broderick & Baseom Rope Co., St. Louis, Mo.,
Contractors' Plant Mg. Co., Inc., Buffalo, N. Y.

Roebling's Sons Co., J. A., Trenton, N. J.

Williamsport Wire Rope Co., Williamsport, Pa.,
Youngstown Sheet & Tube Co., Youngstown, O.

Wire Rope Clips. merican Hoist & Derrick Co., St. Paul, Minn.

Wire Rope Thimbles.
Broderick & Bascom Rope Co., St. Louis, Mo. Wood Blocks. (For Paving and Factory Floor 8. Wood Preserving Co., New York, N. Y.

Woodboring Machines.

Wood-Fiber Plaster. ing & Co., J. B., New York, N. Y. Wood Pipe. (For Water, etc.) Wyckoff & Son Co., A., Elmira, N. T.

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Woodworking Machinery.
Gibbes Mely, Co., Columbia, S. C.
Kilne, Lewis T., Alpena, Mich.
Knight Mig. Co., Canton, O.,
Lane Mig. Co., Chagrin Falls, O.,
Bolimer & Sons, Samuel J., Milton, Pa.
Smith-Courtey Co., Richmond, Va.
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Smith Machine Co., H. B., Smithville, N. J.
Wilmington Iron Works, Wilmington, N. G.,
Vance & Co., J. A., Salem, N. C.

Wrapping Paper. Berlin Mills Co., Portland, Maine.

Yarn. (Tarred Sial.)
American Manufacturing Co., New York, N. Y.
Columbian Rope Co., Auburn, N. Y.
Plymouth Cordage Co., North Plymouth, Mass.
Whitloc! Cordage Co., New York, N. Y.

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12	Greenspon & Sons, Jos. 89 Greenwald Co., I. & E. 5 Gregory Electric Co. 84 Griffith & Wedge Co., The 5 Guaranty State Bank & Trust	J. H	
15	Gregory Electric Co 84 Griffith & Wedge Co The 5	Males Co	
92 15	Guaranty State Bank & Trust Co	Manning, Maxwell & Moore,	R
100	Co	Inc	Re
11	Gulf Refining Co 15	Marion Steam Shovel Co 86 Marsh-Capron Mfg. Co 3	Re
97	Hague, John	Marsh-Capron Mfg. Co	Re
	Hague, John	Maryland Terra-Cotta Co 35 Mason Machine Works 104	Ri
81	Co	Massee & Felton Lumber Co109 Mathes Iron & Metal Co., G 88	Ri
oo I	darned & van Maur 85	May & Turner	RI
17 1	Harrisburg Fdry. & Machine Works		Ri
9 1	Harris Granite Quarries Co 97 Harry Bros. Co 98	McCrary Co., Inc., J. B 28	RI
81 j	Harry Bros. Co	McCalla, Harold . † McCary Co., Inc., J. B. 23 McGowan Co., John H. 102 McKenna, Dr. Chas. F. 22 McKenna Bros. Brass Co. 34 McKenna Bros. Pauli Co. 64	Ri
06 i	fartford Steam Bir. Ins. &	McKenna Bros. Brase Co 34 McKiernan-Terry Drill Co 91	Ri
83 I	Insp. Co	McKiernan-Terry Drill Co 91 McLanahan-Stone Mach. Co 96 McLanahin & Johnson 22	Ro
		McWane Pipe Works	Ro
1 2	latton, T. Chalkley	McLaughlin & Johnson. 22 McWane Pipe Works. 99 Mead-Morrison Mfg. Co. 92 Mecklenburg Iron Works. 95 Mercantile Trust & Deposit Co. 75	Ro
44 H	tayton Fump CO	Merchant & Evalls Co	Ro
93 I	feisler Locomotive Works 90 lendrick Mfg. Co 95	Merchant & Miners Transpor- tation Co	Ro
91 E	litner's Sons Co., Henry A 85, 86, 86	Merchants' National Bank of Baltimore	Ro
22 E	Solution Solution	Baltimore	Ro
12 E	loffman & Co., R. C	M. F	Ro
02 E	olophane Co	Miletz, A	Ro
5 H	Tolophane Co		Ro
14 H	looven, Owen, Rentschier Co. 101 loppes Mfg. Co	Miller, C. E	Ru
DO H	lood, B. Mifflin	Milwaukee Artistic Metal Ceil- ing Co	Ru
1 H	Owe Scale Co	Mchy. Co	Ru
H H	ower, J. K	Mchy. Co	
† H	unt Co., C. W	Missouri Malleable Iron Co106 Missouri Valley Bridge & Iron Co83	Sac
4 H	Ouston, Stanwood & Gamble Co	Co	Saf
7 H	yde Bros. & Co	Monighan Machine Co	Sal
5 H	yde Bros. & Co	Monitor Stm. Gene'r Mfg. Co 34 Monroe, W. P 81 Moran Flexible Stm. Joint Co.,	Sar
6 4	умения вооник об 39	Moran Flexible Stm. Joint Co.,	Sav
i II	linois Central Railroad110, 114 linois Machinery Co85 nproved Equipment Co28 idependent Pneumatic Tool Co	Morgan Engineering Co 99	Sca
5 li	nproved Equipment Co 28	Morris, Abbott & Co	Sch
4 II	Co95	Morse Twist Drill & Mach Co 4	Sch
2 11	dia Alkaii Works †	Mundt & Sons, Chas	Sea
7 11	gersoll-Rand Co	Muse, C. E	Sec
4 11	gersoil-Rand Co. 91 ternational Greeoting & Construction Co. 109 ternational Filter Co. 12 terratate Audit Co. 75 ter-State Automobile Co. 2 onton Portland Cement Co. 24 onnois From Works The 24	Myers & Bros., F. E	Sell
3 In	terstate Audit Co 75		Sha
f In	onton Portland Cement Co ‡	Nashville Armature Works * Nashville Hardwood Flooring	Sha
	oquois Iron Works, The † thmian Canal Com	Co	Shi
5	C. H. Colmostata a	Baltimore, Md., The	Sibi
J	C. H. Galvanizing Co	National Iron & Steel Co 88	Sid
Je	nkins Bros	National Lumber & Creosoting Co	Sip
Je	ssop & Sons Steel Sales Co.,	National Roofing Co 1 National Roofing Co 39	Siri
Jo	Wm	Co	Smi
Jo	hnson, E. J	Naylor & Co., S. E	Smi
Jo	nes & Laughlin Steel Co 18	New First National Bank 75	Smi
	C. Elevator Mar Co	New First National Bank	Sne
Ke	O. Elevator Mfg. Co	New Orleans Roof. & Metal	Sou
Ke	Jo., S	New York Cont. Jewell Fil. Co. 12	Sou
Ke	dip-Springfield Road Roller	Niagara Falls Metal Stamping Works35	Sou
Ke	nnedy, Chas. R	Nicetown Plate Washer Co 83 Nicholson File Co 44	Sou
Ke	100, 5		Sou
Ke	ntucky Electrical Co 8	North American Metaline Co 19	In

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1010 Clay Products O. 22 22 22 23 24 24 25 24 24 24 24 24	16 16 36	Co. Northern Engineering Works. Northern Engineering Works. Northrup, Willard C. Norton Co. Norwalk Brass Co. Nurwalk Brass Co. Nusbaum & Co. S. L. Nuveen & Co., John.	40 - 92 22 † †
107 Page Worén Wire Fence Co.	104 103 22	Onio Ciay Products Co Ohio Elevator & Machine Co Ohio Locomotive Crane Co Old Dominion Land Co Oliver Mfg. Co., The Wm. J. 8 Otis Elevator Co Otto Gas Engine Co	102
Puriser, J. R.	17 103 228 222 222 229 98 87 8 80 80 84 84 88 88 82 22 22 22 22 22 39 99 1 4 4 86 100 100 100 100 100 100 100 100 100 10	Pace, D. S. Page Wovén Wire Fence Co	74 654t* t* 998822550 * 1994551
Southern Engine & Boiler Wks. Southern Iron & EquipmentCo. 88 Southern Mosaic Tile Co	SENTER CONTRACTOR OF THE PROPERTY OF THE PROPE	Proposal Dept. 91 Purser, J. R. 16 Raleigh Iron Works Co. 85 Randle Mchy. Co. 82 Rading & Howard W. 22 Reding & Howard W. 22 Reliance Steel Casting Co. 166 Remington Machine Co. 13 Republic Iron & Steel Co. 31 Rice, H. B. 18 Richmond Forgings Corp'n. 106 Richmond Fredericksburg & Potomac Railroad. 110 Richmond Machine Works. 106 Richmond Safety Gate Co. 85 Richmond Safety Gate Co. 86 Richmond Safety Gate Co. 86 Richmond Safety Gate Co. 85 Rice Conley Mg. Co. 36 Richer Safety Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter Mg. Co. 107 Roberts Filter Mg. Co. 106 Roanoke Bridge Co. 107 Roberts Filter	TES JELESTER ARE AREA AREA AREA AREA AREA AREA AR

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Underground Const.Co., Tbs., 2
Union Iron Works Co., Ths., 3
Union Iron Works Co., Ths., 3
Union Steam Form Co. 8
Union Sulphur Co. 9
United States Cast Iron Pipe 6
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Co. 8
United States Rell Co. 9
United States Rall Co. 9
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Universal Road Machinery Os. 8
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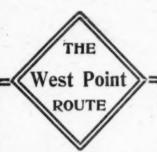
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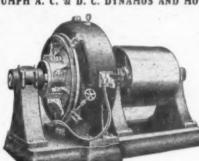
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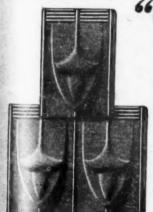
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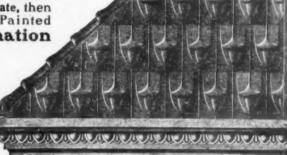


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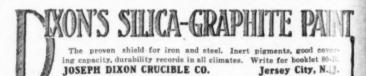
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